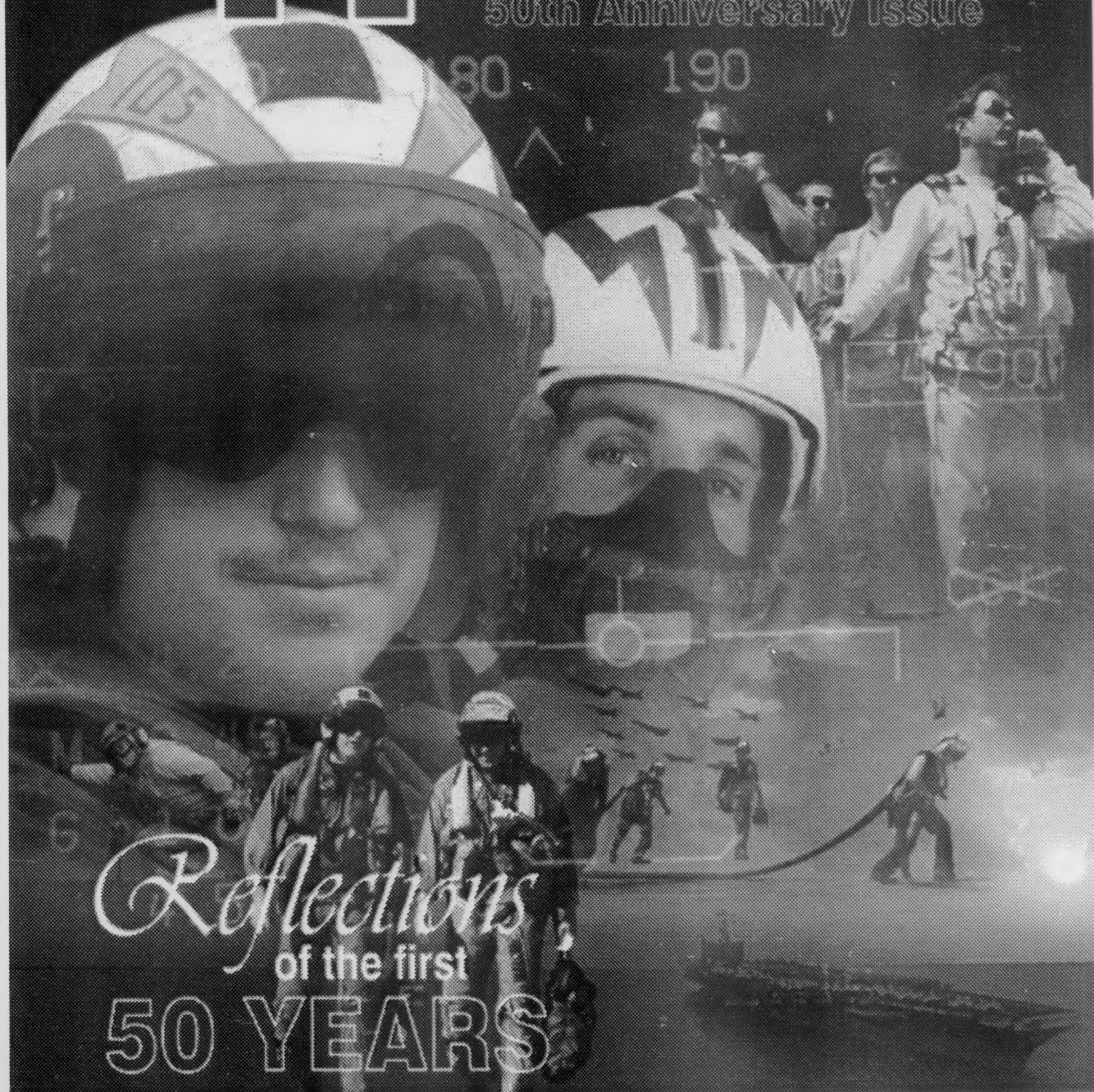


THE NAVY & MARINE CORPS AVIATION SAFETY MAGAZINE

www.safetycenter.navy.mil • November-December 2005

Approach

50th Anniversary Issue



The Navy & Marine Corps Aviation Safety Magazine

November/December 2004 Volume 32 Number 6

RAADM George Mayer Commander, Naval Safety Center
Col. James F. Jamison, USMC Deputy Commander
John Mahoney Head, Communications and Marketing
Naval Safety Center (757) 444-3520 (DCN 564) Dial the following extensions any time during the greeting

Publications Fax: (757) 444-6791

Approach Staff

Jack Stewart Editor
 jack.stewart@navy.mil
Allan Amen Graphics, Design & Layout
 allan.amen@navy.mil
Ginger Rives Distribution (Magazines and Posters)
 ginger.rives@navy.mil
Capt. Ken Neubauer Aviation Safety Programs
 kenneth.neubauer@navy.mil
Kimball Thompson EA, Aviation Safety Programs
 edward.thompson@navy.mil
Cdr. Deke Forbes Aircraft Operations Division
 donald.forbes@navy.mil
Cdr. Bob Standley Aircraft Mishap Investigation Division
 robert.standley@navy.mil
Capt. John Lee Aeromedical Division
 john.lee12@navy.mil

Analysts

Cdr. Mike Scavone Fixed Wing Branch Head, EA-6B, S-3, T-45, F-14
 mike.scavone@navy.mil
Cdr. John Morrison T-45, T-2, T-3B, F-16, F-5
 john.morrison@navy.mil
LCdr. Gretchen Swanson SH-60F, HH-60H, HH-60B
 gretchen.swanson@navy.mil
Maj. "Spool" McCann, USMC AV-8B, ARSAG, NVD
 spool.mccann@navy.mil
LCdr. Marc "Mitt" Carson EA-19
 marc.carson@navy.mil
LCdr. Bruce Bicknell MH-53E, H-3, SH-60B
 bruce.bicknell@navy.mil
Lt. Michael Ellingsen C-12, T-8 (JPATS), T-44, T-44, T-44
 michael.ellingsen@navy.mil
LtCol. Jon MacCartney, USMC CH-46E, V-22, USMC CH-53
 jon.maccartney@navy.mil
Capt. "Fancy" Shea, USMC H-1, H-67, NVD
 fancy.shea@navy.mil
Lt. Angela Hill E-2, C-2, UAV
 angela.hill@navy.mil
Lt. Mark A. Carstens Facilities Branch, Fuis
 mark.carstens@navy.mil
ACCS (AW/SW) Lindsey McPherson ATC
 lindsey.mcpherson@navy.mil
ABECS (AW/SW) John Timko ALRE/Air Terminal
 john.timko@navy.mil
ABEZ Samuel Phillips ALRE/Air Terminal
 samuel.phillips@navy.mil

Perhaps, under our time and resources, they take on Salvo, Mustang and carrier shipboard wing from their safe and well-placed and put them in jeopardy, check back and call. Perhaps the equipment and weapons they think too modern. The magazine's goal is to help ensure that personnel can do the time and energy to the mission, and that any losses are due to enemy action, not to our own error, oversight or failure to manage risk. We believe there is only one way to do any task: the way that follows the rules and takes responsibility against hazards. Combat is hazardous enough, the time to learn to do a job right is before combat starts.

Approach is published bimonthly by Commander, Naval Safety Center, and is an authorized publication for members of the Department of Defense. Contents are not necessarily the official views of, or endorsed by, the U.S. Government, the Department of Defense, or the U.S. Navy. Photos and artwork are representative and do not necessarily show the people or equipment discussed. We reserve the right to edit all manuscripts. Information for commercial products does not imply Navy endorsement. Unless otherwise stated, material in this magazine may be reprinted without permission, please credit the magazine and author. Copyright is available for sale to the Department of Defense, 101 New Orleans, Pittsburgh, PA 15206-1064. Telephone: (412) 526-1000. Fax: (412) 526-1001. E-mail: approach@navy.mil. Send articles and letters to the addresses above or via e-mail to the editor: jack.stewart@navy.mil.

Postmaster: Send address changes to Approach, Suite 73A, Naval Safety Center, 375 A Street, Norfolk, VA 23511-4399.

Send articles and letters to the addresses above or via e-mail to the editor: jack.stewart@navy.mil.

C O N T E N T S

1. Admiral's Corner

Naval Aviation—Looking Back, Moving Forward, By RADM. George Mayer

2. Welcome to Approach Magazine's 50th Anniversary Issue

3. 1955-1965 Introduction

Anymouse's Anniversary

...and then there were none...

The Return of Walter Smitty

11. 1966-1975 Introduction

Will To Survive, By Cdr. Wynn F. Foster

We Just Spun It

The Scapegoat

18. 1976-1985 Introduction

The Ten Commandments of the Landing Signal Officer, By LCdr. M. R. Grothausen

Touch-and-Go with the Grim Reaper, By Lt. Gordon Heyworth

Double Flameout or How to Ruin a Box Lunch, By Lt. Gary C. Bowser

The Mad Monsters of the Air, As catalogued by Lt. Bruce H. Shumway

28. 1986-1995 Introduction

"Bless Me XO, For I Have Sinned..." By Cdr. D. R. Bouchoux

The World's Greatest Attack Pilot, By Stephen Coonts

The First Ejection, By Peter Mersky

80 Years of Fatal Fun, By Derek Nelson

Bravo Zulu

35. 1996-2005 Introduction

"We Just Put an Aircraft in the Bay!" By AME1 (AW) David B. Clouser

Welcome to Naval Aviation, By Ltjg. Brandon Scott

Airshow Attack, By LtCol. Peyton DeHart, USMCR

I Want to Be a Navy Pilot, By a fifth grader

Brownshoes in Action Comix, By LCdr. Ward Carroll

On the centerfold: 50th anniversary commemorative painting by Bryan Snuffer "5977 and the Next 50 Years."

On the cover: 50th Anniversary Issue composite artwork by Allan Amen. Back cover: photo by Fred J. Klinkenberger Jr.

Special thanks to Peter Mersky for the decade introductions.





Admiral's Corner

From Commander, Naval Safety Center



We used to lose a plane or two every day and hold memorial services every week for our young

men who regularly perished in their flying machines. But that was 50 years ago.

Naval aviation has come a long way since 1955. Through this journey, *Approach* magazine has guided our Navy and Marine Corps aviation professionals with information, statistics, and a bit of humor. Most of all, *Approach* has given us a place to share our stories, our misdeeds, and our adventures, to make us better, safer and more effective. This sharing of stories, which had its origin with the *Anymouse* reports, also has bonded naval aviators – past and present – to one another and to the profession itself. With this special bond comes the responsibility to take care of each other.

This 50th anniversary issue only can provide a sampling from past issues. As you step through each decade, we want you to reflect on how naval aviation has improved over the years. Since *Approach* came on the scene, we've developed NATOPS, the angled deck, the mirror, Fresnel-lens and IFLOLS systems, field arresting gear, and ejection seats. The chart to the right indicates the progress we've made and lists a few of the events that influenced the reduction in mishaps. The mishap rates, fatalities, and aircraft losses from the mid-1950s were at unacceptable levels. Just as we currently strive to reduce our mishap rates, the professionals who follow

us also will consider our current numbers too high, and we should as well! That's how it should be: raising the bar and continually improving.

From Vietnam to the Cold War, and now with the global war on terrorism, the face of naval aviation has changed with newer aircraft and generations of young aviators. In another sense, though, it's really the same: professionals, well trained and focused on carrying out the mission. Success depends on people doing their jobs, day after day, in the safest possible manner.

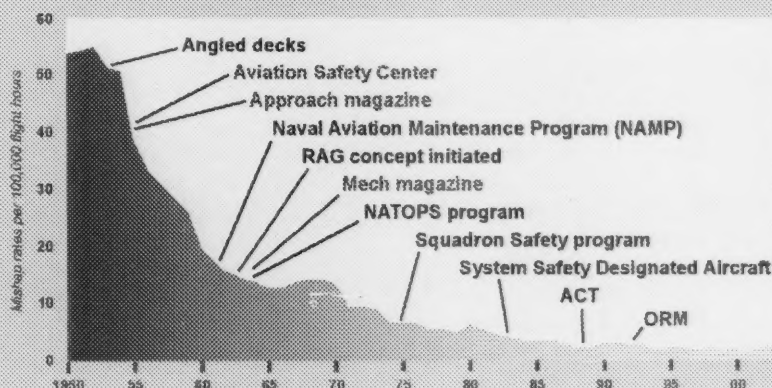
Approach magazine and all the professionals who have contributed to it over the years have left their mark on the safety culture of naval aviation. Your stories are a valuable part of the legacy we leave for the next generations of aviators. Many thanks for all your contributions.

RADM George Mayer

OVER 50 YEARS OF SAFETY PROGRESS

1955 - 366 deaths, 776 aircraft destroyed

2005 - 35 deaths, 16 aircraft destroyed



Welcome to Approach Magazine's 50th Anniversary Issue

Attempting to squeeze 50 years of aviation highlights and safety information into one issue has challenged us, so we divided this special issue into five decades.

Peter Mersky, a long-time former Approach editor, has written an informative introduction for each decade and points out significant naval aviation events that took place during that specific period. The magazine's center fold features original artwork by Bryan Smuffer, and the painting's content bridges naval aviation from the mid-1950s to today's era and into the future.

This page depicts the first two articles from the very first issue of Approach. Their words from 1955 still ring true. Then, as now, the real value of this magazine

THE DEPUTY CHIEF OF NAVAL OPERATIONS (ADM)
WASHINGTON

It is with a great deal of pleasure that I address you through the medium of the first issue of the NAVAL AVIATION SAFETY REVIEW.

Naval Aviation has progressed very rapidly during the past few years. To realize maximum effectiveness and combat readiness it has been necessary to place strong emphasis on our aviation accident prevention program. The excellent progress which has been made during the past year is most gratifying and has resulted in the saving of lives and the conservation of extremely costly equipment.

The NAVAL AVIATION SAFETY REVIEW will provide a medium through which all of us can benefit from the experience of others. By bringing to light the mistakes as well as the accomplishments of others who fly, we can reduce the number of instances in which pilots must learn the "hard way".

The accident prevention program is an all hands evolution, and this publication is intended for the use of all who may contribute to the safety of our flight operations. We must all, individually and collectively, contribute to the aviation safety program by hard work in our own particular specialty. By submitting ideas, articles, experiences and photographs pertinent to the problems that we encounter for publication in this magazine, we can make a special contribution which will help to keep the accident rate on its present downward trend.

Wm. S. Roberts
THEO. S. COMBS



THIS, the first issue of *The Approach*, warrants a brief introduction.

In developing this new voice of naval aviation safety, the principal consideration was you, the reader.

Knowing that any successful aviation safety program must possess continuity of purpose, and clearness and simplicity in presentation, the format of *The Approach* was designed to include the three major areas of aircraft accident prevention: Flight Operations, Aviation Medicine and Maintenance. The major theme of each month's issue will be the aircraft accident prevention subject outlined in the Aviation Safety Planning Guide.

Safety in naval aviation is a large and complex problem to which no single answer may be applied, but which requires many solutions, or approaches to that problem.

To provide you, the pilot, the aircrewman and ground maintenance personnel with positive, continuing Navy-wide approaches to your individual problems is our purpose.

With this in mind a survey was made within the staff of the Naval Aviation Safety Center to obtain a keynote expression of the purpose of the new magazine. In proposing *The Approach* as best identifying the Naval Aviation Safety Review as the voice of naval aviation safety we remind you that the magazine is only as good as you, the reader make it.

For that reason, if you like our selection let us know your approval. If you have a better suggestion we welcome the submission of your ideas, names and titles which might better express that identity.

This is your magazine, and we urge your assistance in making it the approach to positive safety in naval aviation.

lies in the contributors: stories and articles you submit with the intent that others will learn from your mistakes and not repeat them. Over the years Approach has become part of the fabric and part of the institution of naval aviation safety.

We hope this issue offers a perspective on where we've been and where we're headed in our quest to make our profession mishap-free.
— Jack Stewart, Editor

New Aircraft:

1955: Chance Vought XF8U-1 Crusader makes first flight.

1956: First Douglas A3Ds join the fleet with VAH-1 at NAS Jacksonville.

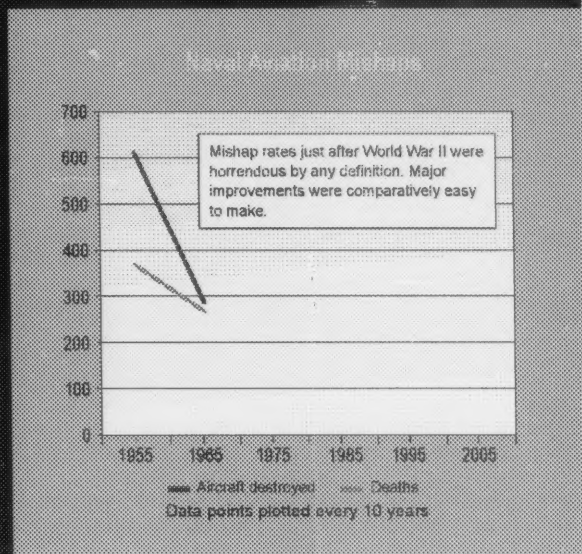
1958: North American T2J-1 (later T-2A) Buckeye makes its first flight. T-2B and T-2C added another engine and trained thousands of carrier aviators during its 40-plus-year career. The

Instead of indicating manufacturer as in P3V (V for Lockheed), the new designation is P-3, with a sequential letter to indicate variant, as in P-3C.

1965: The A-7A Corsair II makes its first flight.

March 26, 1965: Operation Rolling Thunder begins in Southeast Asia.

June 17, 1965: F-4 Phantoms score the first Navy kills over North Vietnam, shooting down two MiG-17s.



When the first issue of *Approach* appeared in July 1955, naval aviation was undergoing a period of great transition that had begun just after World War II. The jet, put into service in the last year of the war, quickly was overtaking its prop-driven predecessors, although the new technology was initially limited to carrier tactical types. The helicopter, which also had seen service in the last months of the war, was beginning to appear in squadrons.

When *Approach* began publication, the Class A mishap rate was 38.18 per 100,000 flight hours.

Other developments included the angled carrier deck and steam catapult, as well as early versions of landing systems. Aircraft armament began changing with the introduction of air-to-air missiles, guided weapons, and the changeover from the .50-caliber machine gun to the heavier-hitting 20mm cannon. Aircraft radar systems and ejection seats also saw great improvements, that increased aircraft effectiveness and aircrew survivability.

Antisubmarine warfare aircraft saw new developments in radar and weapons, and new types like the Grumman S2F Tracker (and its cargo-carrying COD variant, the TF-1 and AEW model WF-1 Tracer) and Lockheed P2V Neptune began to appear in squadrons.

A completely new area of naval aviation was the space pro-

1955-1965

McDonnell F4H Phantom II and the Lockheed Electra airliner (reconfigured as the first P3V-1) make their first flight.

1960: The Grumman YA2F-1 (later A-6A) Intruder and W2F-1 (later E-2A) Hawkeye make their first flight.

1964: Converted from an E-2A, the YC-2A Greyhound makes its first flight.

Important Dates:

May 2, 1955: Aviation Officer Candidate School (AOCS) opens.

August 22, 1955: Cdr. Robert G. Dose, CO of VX-3, makes the first landing using newly developed mirror-landing system.

September 12, 1955: All fighters in production begin to be equipped for aerial refueling.

October 1, 1955: USS *Forrestal* (CVA-59) placed in commission as lead ship in a new class of super carriers.

October 16, 1956: First students receive Naval Observer wings, the forerunner of today's Naval Flight Officers (NFOs).

December 14, 1961: The first installation of the pilot-landing-aid television (PLAT) system is completed on USS *Coral Sea* (CVA-43).

October 1962: The designation system for all U.S. military aircraft, in use since before World War II, is changed and simplified.

gram, with several naval aviators among the initial group of astronauts chosen to make this country's first sub-orbital, then orbital flights, beginning in May 1961.

An older technology began to be phased out: lighter-than-air. The Navy's non-rigid blimp fleet, a major force during the 1930s and 1940s, had pared down to long-ranging airships, whose specialized crews and commanders helped protect American coastlines from enemy attacks until the appearance of more advanced radar and aircraft put the big airships out of business by 1962.

Besides the first publication of safety magazines, such as *Approach*, the Navy also reconfigured its safety program, establishing the Naval Aviation Safety Activity in 1951—it was redesignated the Naval Aviation Safety Center in 1955—then the Naval Safety Center (NSC) in May 1968. The new facility combined the safety activities of other communities, such as submarines and surface with the aviation group.

The Naval Air Training and Operating Procedures Standardization Program (NATOPS) also began in 1961, refining and standardizing operating requirements and procedures for naval aviation and creating the infamous "blue sleeping pills," the NATOPS manuals for each specific aircraft and its variants.

Welcome to Approach Magazine's 50th Anniversary Issue

Attempting to squeeze 50 years of aviation highlights and safety information into one issue has challenged us, so we divided this special issue into five decades.

Peter Mersky, a long-time former Approach editor, has written an informative introduction for each decade and points out significant naval aviation events that took place during that specific period. The magazine's centerfold features original artwork by Bryan Snuffer, and the painting's content bridges naval aviation from the mid-1950s to today's era and into the future.

This page depicts the first two articles from the very first issue of Approach. Their words from 1955 still ring true. Then, as now, the real value of this magazine



THE DEPUTY CHIEF OF NAVAL OPERATIONS (AIR)
WASHINGTON

It is with a great deal of pleasure that I address you through the medium of the first issue of the NAVAL AVIATION SAFETY REVIEW.

Naval Aviation has progressed very rapidly during the past few years. To realize maximum effectiveness and combat readiness it has been necessary to place strong emphasis on our aviation accident prevention program. The excellent progress which has been made during the past year is most gratifying and has resulted in the saving of lives and the conservation of extremely costly equipment.

The NAVAL AVIATION SAFETY REVIEW will provide a medium through which all of us can benefit from the experiences of others. By bringing to light the mistakes as well as the accomplishments of others who fly, we can reduce the number of instances in which pilots must learn the "hard way".

The accident prevention program is an all hands evolution, and this publication is intended for the use of all who may contribute to the safety of our flight operations. We must all, individually and collectively, contribute to the aviation safety program by hard work in our own particular specialty. By submitting ideas, articles, experiences and photographs pertinent to the problems that we encounter for publication in this magazine, we can make a special contribution which will help to keep the accident rate on its present downward trend.

Edw. S. Combs
THOS. S. COMBS



THIS, the first issue of *The Approach*, warrants a brief introduction.

In developing this new voice of naval aviation safety, the principal consideration was you, the reader.

Knowing that any meaningful aviation safety program must possess continuity of purpose, and clearness and simplicity in presentation, the format of *The Approach* was designed to include the three major areas of aircraft accident prevention: Flight Operations, Aviation Medicine and Maintenance. The major theme of each month's issue will be the aircraft accident prevention subject outlined in the Aviation Safety Planning Guide.

Safety in naval aviation is a large and complex problem to which no single answer may be applied, but which requires many solutions, or approaches to that problem.

To provide you, the pilot, the aircrewman and ground maintenance personnel with positive, continuing Navy-wide approaches to your individual problems is our purpose.

With this in mind a survey was made within the staff of the Naval Aviation Safety Center to obtain a keynote expression of the purpose of the new magazine. In proposing *The Approach* as best identifying the Naval Aviation Safety Review as the voice of naval aviation safety we remind you that the magazine is only as good as you, the reader make it.

For that reason, if you like our selection let us know your approval. If you have a better suggestion we welcome the submission of your ideas, names and titles which might better express that identity.

This is your magazine, and we urge your assistance in making it the approach to positive safety in naval aviation.

lies in the contributors: stories and articles you submit with the intent that others will learn from your mistakes and not repeat them. Over the years Approach has become part of the fabric and part of the institution of naval aviation safety.

We hope this issue offers a perspective on where we've been and where we're headed in our quest to make our profession mishap-free.
— Jack Stewart, Editor

New Aircraft:

1955: Chance Vought XF8U-1 Crusader makes first flight.

1956: First Douglas A3Ds join the fleet with VAH-1 at NAS Jacksonville.

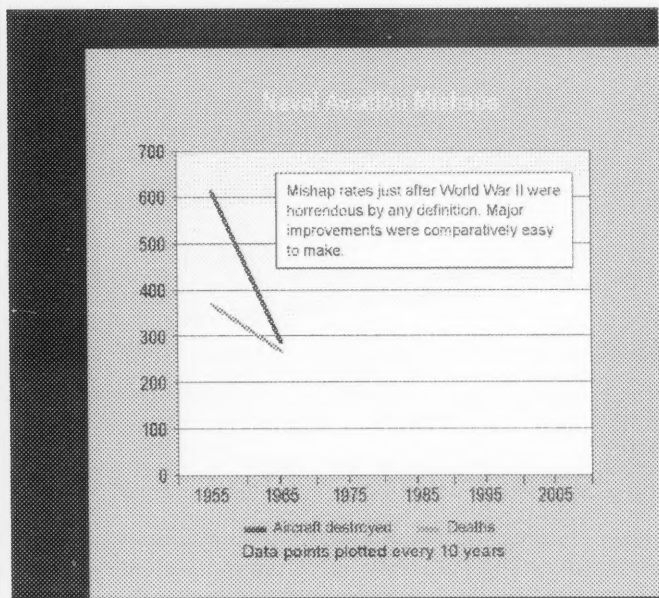
1958: North American T2J-1 (later T-2A) Buckeye makes its first flight. T-2B and T-2C added another engine and trained thousands of carrier aviators during its 40-plus-year career. The

Instead of indicating manufacturer as in P3V (V for Lockheed), the new designation is P-3, with a sequential letter to indicate variant, as in P-3C.

1965: The A-7A Corsair II makes its first flight.

March 26, 1965: Operation Rolling Thunder begins in South-east Asia.

June 17, 1965: F-4 Phantoms score the first Navy kills over North Vietnam, shooting down two MiG-17s.



When the first issue of *Approach* appeared in July 1955, naval aviation was undergoing a period of great transition that had begun just after World War II. The jet, put into service in the last year of the war, quickly was overtaking its prop-driven predecessors, although the new technology was initially limited to carrier tactical types. The helicopter, which also had seen service in the last months of the war, was beginning to appear in squadrons.

When *Approach* began publication, the Class A mishap rate was 38.18 per 100,000 flight hours.

Other developments included the angled carrier deck and steam catapult, as well as early versions of landing systems. Aircraft armament began changing with the introduction of air-to-air missiles, guided weapons, and the changeover from the .50-caliber machine gun to the heavier-hitting 20mm cannon. Aircraft radar systems and ejection seats also saw great improvements, that increased aircraft effectiveness and aircrew survivability.

Antisubmarine warfare aircraft saw new developments in radar and weapons, and new types like the Grumman S2F Tracker (and its cargo-carrying COD variant, the TF-1 and AEW model WF-1 Tracer) and Lockheed P2V Neptune began to appear in squadrons.

A completely new area of naval aviation was the space pro-

1955-1965

McDonnell F4H Phantom II and the Lockheed Electra airliner (reconfigured as the first P3V-1) make their first flight.

1960: The Grumman YA2F-1 (later A-6A) Intruder and W2F-1 (later E-2A) Hawkeye make their first flight.

1964: Converted from an E-2A, the YC-2A Greyhound makes its first flight.

Important Dates:

May 2, 1955: Aviation Officer Candidate School (AOCS) opens.

August 22, 1955: Cdr. Robert G. Dose, CO of VX-3, makes the first landing using newly developed mirror-landing system.

September 12, 1955: All fighters in production begin to be equipped for aerial refueling.

October 1, 1955: USS *Forrestal* (CVA-39) placed in commission as lead ship in a new class of super carriers.

October 16, 1956: First students receive Naval Observer wings, the forerunner of today's Naval Flight Officers (NFOs).

December 14, 1961: The first installation of the pilot-landing-aid television (PLAT) system is completed on USS *Coral Sea* (CVA-43).

October 1962: The designation system for all U.S. military aircraft, in use since before World War II, is changed and simplified.

gram, with several naval aviators among the initial group of astronauts chosen to make this country's first sub-orbital, then orbital flights, beginning in May 1961.

An older technology began to be phased out: lighter-than-air. The Navy's non-rigid blimp fleet, a major force during the 1930s and 1940s, had pined down to long-ranging airships, whose specialized crews and commanders helped protect American coastlines from enemy attacks until the appearance of more advanced radar and aircraft put the big airships out of business by 1962.

Besides the first publication of safety magazines, such as *Approach*, the Navy also reconfigured its safety program, establishing the Naval Aviation Safety Activity in 1951—it was redesignated the Naval Aviation Safety Center in 1955—then the Naval Safety Center (NSC) in May 1968. The new facility combined the safety activities of other communities, such as submarines and surface with the aviation group.

The Naval Air Training and Operating Procedures Standardization Program (NATOPS) also began in 1961, refining and standardizing operating requirements and procedures for naval aviation and creating the infamous "blue sleeping pills," the NATOPS manuals for each specific aircraft and its variants.

The theme of this issue is to induce "all hands" to report incidents by submitting Anymouse Reports. This is one answer to getting the word out on safety.



Anymouse's Anniversary

September 1955

With this issue Anymouse celebrates his second anniversary of duty with the Aviation Safety Center. Born some eight years ago in VR-31, the original idea of submitting anonymous reports is credited to LCDR Trygve A. Holl, USN, safety officer of that squadron.

Since reporting to the Aviation Safety Center in 1953, Anymouse and his many cousins scattered throughout naval aviation have busied themselves most encouragingly. Officially, the word Anymouse designates a form available to Navy and Marine Corps personnel for reporting, anonymously, near-accidents or incidents which might have led to aircraft accidents of a more serious nature. These hairy tales, submitted by nameless airmen, provided a means for pilots and crewmen to gain valuable knowledge from the experience of others.

Many Reports Received

How has Anymouse prospered? "Any" can grin proudly over just a few statistics: To date there have been over 400 of these candid confessions which usually begin with "There I was..." and which invariably close

with a fervent "never again!" note of wisdom. Involved in the accounts have been some 36 different model aircraft; an impressive number of air stations and facilities, not to overlook a generous coverage of carriers.

In particular aircraft, the F9F leads in the number of reports (59) with the F2H Banshee a close second with 40 reports. In close order thereafter are represented the SNB and the AD.

Some of the reports gripe about inadequacies of certain components or procedures. Others blushing admit personal mistakes and analyze their actions in close situations.

Many reported maintenance discrepancies which caused hair-raising moments. All displayed individual



September 1955

initiative and professional consideration in taking time to submit an Anymouse Report. The value in lives saved and damage to property prevented can only be guessed from the occasional reports received of positive saves resulting from Anymouse information.

One pilot expressed it this way. "This Anymouse business is all right as never before could a man admit he had a close one, yet not hurt his career and at the same time help to save lives and aircraft. Long live Anymouse!"

Anymouse in Action

In troubleshooting, Anymouse reports have proved their worth. Because of the nature of the reports, many saves are not credited to the Anymouse system. But

Anymouse reports have been received covering a great variety of situations. Some of these, and the number of each type incident are:

Turbulent weather and thunderstorms	25
Material failure and maintenance	59
Inadvertent operation of cockpit controls	30
Takeoff situations	47
Near wheels-up landings	11
Near mid-air collisions	18
Communication difficulties	31
Taxiing	17
Flameouts, airstarts and dead-stick landings	13
Oxygen experience and systems	17
Preflight laxity	21
Carrier takeoffs and landings	16

Share your experience . . . send in an Anymouse report. Blanks are available in all NAS and CV operations offices, ready rooms and line shacks. If you don't have a form, just write it on any stationery and address to

*U.S. Naval Aviation Safety Center
U.S. Naval Air Station
Norfolk 11, Virginia*

some of his work has been acknowledged specifically. For instance an omission of certain instructions in the pilot's flight handbook of a jet fighter was noted. The

report got official attention and action was promptly taken to correct the deficiency.

One Anymouse reported an undesirable feature of the control stick in a particular model aircraft. This was also given official attention for consideration in redesigning the stick. Then came an Anymouse report on a hazardous runup condition existing at a naval air station. The CO of the station was advised and immediate action eliminated the hazard.

In another instance, a report of a small flash explosion in an oxygen mask interested an officer in BuAer and through his efforts a thorough investigation was made. The incident had happened before and was being blamed on poor maintenance. The real trouble was discovered in the cockpit microphone receptacle. It had been modified by the contractor and allowed the plug and receptacle to be connected wrong. A field change was issued as an interim to the contractor's engineering change.

All reports received have not been printed as yet, though many have been published in *The Approach* and other reports issued by NASC. However all reports received are analyzed for use in research studies and many requiring action are handled through personal phone calls, letters or become the subject of an article or research project. Tentative plans have been made to publish the majority of the Anymouse reports in a series of digests beginning in the near future.

Others Use System

The value of Anymouse reporting has been recognized by both the United States Air Force and several of its commands, as well as certain commercial airlines who have adopted similar systems of incident reporting.

Anymouse blanks are available on every carrier and air station. Reports can be submitted by personal letter or memorandum as well. If the supply of forms in your squadron or base is running low, send a formal or informal request for more copies to the Naval Aviation Safety Center, NAS, Norfolk, Virginia.

As one poetic Anymouse said, "Cut the 'axe' out of accident with the 'in' it's an incident. The difference is an Anymouse. Send us yours. It's worth your life."

To Anymouse, that sage of the skyways whose hard-earned wisdom has been a positive contribution to safety in naval aviation, birthday greetings. Well done, and happy landings without incident!

But if you should have an Anymouse type experience, just take a pencil and SUBMIT AN ANYMOUSE, and save a life!



...and then there were none...

November 1955



November 1955



It was a "routine" flight by members of a reserve squadron. Eight pilots were scheduled. Seven got airborne. Five continued the flight to various unscheduled conclusions. One pilot died.

In terms of experience and backgrounds, the pilots represented a typical cross-section of reserve aviation. The list included a manager of an electrical supply firm, the director of industrial relations for an oil refinery, an associate of a farmers' cooperative supply organization, and the director of a local chamber of commerce. Married, family men almost without exception, these pilots engage in three or four flights and log an average of about 10 flight hours per month.

Our story begins with

eight reserve pilots who were scheduled for a VFR flight to provide cruise control training in F9F-7s prior to engaging in forthcoming maneuvers. Planned for several months, the flight received final approval and pilots were designated about 1030 one Saturday morning. Because of this short notice, the squadron had to get two replacement pilots from a local companion squadron. One of the replacements was designated flight leader because he had the necessary instrument qualification required for such flights.

Of the eight pilots scheduled, three had flown a hop previously during the day. Only four had made cross-country flights in the F9F-7. Here was the lineup:

- **No. 1:** (flight leader) received checkout in F9F-7 two months before and had logged 10.7 hours in model.
- **No. 2:** Checked out in model a year previously and had about 60 hours in model.
- **No. 3, 4, 6 and 8:** Checked out in model previous year and had between 20 and 40 hours in model.
- **No. 5:** Checked out about two months before and had approximately 20 hours in model.
- **No. 7:** Checked out about three months before; had about five hours in model.

The 555-mile flight approached mountainous terrain near the destination. A tornado was well to the southwest, and scattered thunderstorms were predicted en route. Time en route was one hour 30 minutes, with the flight to arrive over destination with an estimated

1840 pounds of fuel remaining. Most of the pilots worked out their own flight plans, with the flight leader completing a briefing "as thorough as any flight I ever briefed," he said.

One aircraft was delayed on starting and was left at the line. Radio communications check proved difficult, with considerable shifting of frequency required to establish a common tactical channel. At the head of the runway, there was an initial delay of several minutes while a number of aircraft landed. Takeoff was at 1705. The leader circled the field at low altitude to check the status of the delayed aircraft, which hadn't left the line. One flight member figured that some 800 pounds of fuel had been expended during delays.

Then There Were Seven

Departure and climb to 36,000 feet on a northwest course were uneventful. After 110 miles, No. 5 and No. 6 reported excessive fuel consumption and returned to base. No. 7 moved up into the No. 5 position.

Then There Were Five

After 200 miles, the flight encountered the first thunderstorm, an anvil head at 32,000-to-34,000 feet, which they were able to drop under without difficulty. They flew over several small thunderheads. Weather to the north and east of course appeared relatively clear. Weather at the destination was a comfortable 15,000 feet, scattered, with thunderstorms to the southeast.

Noting what appeared to be a sizable thunderstorm ahead, the flight began climbing to top it. At this time No. 5 began to lag behind. When the flight had attained 38,000-to-40,000 feet and nearing the thunderstorm, the flight leader reduced power to 87 percent to let No. 5 catch up. No. 5 gave a count for a DF steer from the planes ahead, which he could no longer see. No. 3 and No. 4 overran and used their excess speed to pull up slightly higher than the rest of the flight. No. 3 reported that he was encountering stall in his airplane, as did No. 5. One pilot—possibly No. 3—suggested reversal of course, but No. 4, who was higher than the others, reported he could see over the top of the thunderstorm. The leader began a left turn, immediately aggravating the stall of the aircraft. Mushing considerably, the flight entered the cloud, No. 2 entering first, followed by No. 1. No. 4 held course and attitude. No. 3 may have elected to descend through the clouds. No. 5 attempted a 180 but stalled through the tops of the thunderhead at 39,000 feet.

Each pilot found himself with a different set of problems.

Losing the Leader

Completing his turn away from the cloud and circling in the clear at 34,000-to-36,000, No. 1 tried to call the flight but couldn't make radio contact. He descended into the trough paralleling the near side of the cloud, throttle at idle, and leveled at 17,000 feet to go around the edge of the thunderhead and to resume course. He realized, however, that his 1500 pounds of fuel weren't enough and began looking for a place to land. He found a highway, descended to 5,000 feet and checked for obstructions. Then he made an approach over a pickup truck and touched down, blowing a tire as he hit the brakes. He turned off the highway at an intersection, got a ride into town, and hired a tractor to tow the plane. He then learned that an aircraft had crashed 40 miles away. He headed for the scene.

Then There Were Four

No. 2 had elected to descend through what he assumed to be only a layer, hoping to bust out under. He began a 5,000-to-6,000 fpm rate of descent. He ran into lightning and severe turbulence. He tried to hold the nose down to prevent stalling. He then began worrying about his altitude—below 15,000 feet, he would be dangerously near to the mountains ahead. He turned north into more violent turbulence, lost control a couple of times and decided to eject at 15,000 feet. He jettisoned his canopy, lost his helmet (he didn't remember when), and pulled the curtain. Nothing happened, even after the expected two- or three-second delay in the firing of the seat. He peeked around the curtain to see if he were still in the airplane. He released the curtain, waited, still diving, and went back to driving the airplane.

The sight of the ground below showed that he still had a safe altitude. Breaking out at 5,500 feet, he headed east at low speed (since he had no canopy). He selected a stretch of highway near a town as an emergency runway. He was down to 500 pounds of fuel. He approached over an automobile at 150 feet, cut the throttle and landed. Taxiing, he folded the wings to cross a bridge and continued into town where he parked on a side street.

Mechs from a nearby air station brought another canopy, fuel, and a starter unit. Local citizens pushed the airplane back to the highway. After raking off, the pilot said, "I came back and made a pass by the town to

do a roll of appreciation for their help."

Then There Were Three

No. 3 had crashed in a near-vertical angle on the corner of a cement foundation of a farm structure. The farm owner soon complained about the crowds of spectators and souvenir hunters, so the wreckage was bulldozed into the hole it had dug when it hit the building. The pilot was later found, dead of injuries that may have been caused by hitting some part of the plane on bailout.

Then There Were Two



Arrangements were made with a nearby air station for repairs.

No. 4 had said he could see over the top of the cloud, but he stalled and began to lose altitude. He increased power to 100 percent but stayed in a descent. A tentative turn increased the stall. He entered the storm, descending at 4,000 fpm, to save fuel. He turned to parallel the mountains, encountering violent turbulence. Calling "Mayday," he got a weather check from an Air Force B-25, which gave him



When the airplane was again ready for flight, it was pushed to the highway by local citizens.



As the aircraft took off down the highway, everyone in town came out to take pictures of the unusual event.

some idea of weather beyond the storm area.

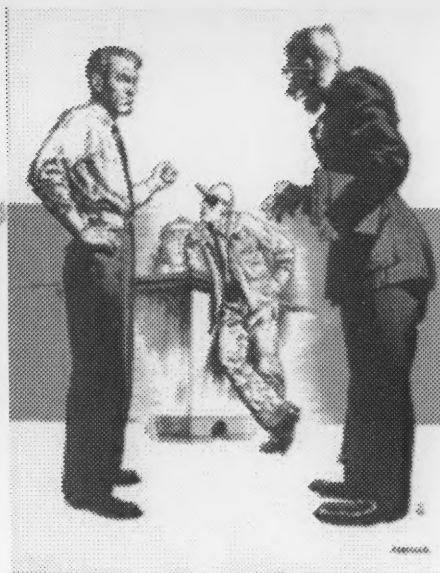
He got a fuel warning light at 12,000 feet, and broke out a thousand feet later. Down to 700 pounds of fuel, he circled a reservoir and considered a water ditching. He opted to try to land on top of the dam, which was 25 feet wide and nearly 10,000 feet long. The water was 15 feet beneath one side. The other side featured a 250-foot drop, with a 3-foot guardrail along the edge. He landed, stayed off the brakes, and taxied off the far end of the dam. An irate official ran out of a building and said, "Son, you're in *trouble*! You can't go landing on government property like this!"

Then There Was One

No. 5 had entered the storm at 39,000 feet and 170 knots, stalling through the tops of the clouds. Flying on instruments, he hit violent turbulence. At one point, the aircraft flipped. He emerged from the clouds at 17,000 feet in a slight nosedown turn, slow enough to stall. He nosed over to pick up speed. He eventually landed at an abandoned airstrip, with only 700 pounds of fuel. He found a house and arranged for fuel to be brought to the airstrip. He returned to base... and then there were none.

The original editor's note said "The Aviation Safety Center is indebted to the pilots who voluntarily provided this candid account for the benefit of other pilots." We have slightly shortened the text of the original story. — Ed. ◀

The Return of WALTER SMITTY



March 1956

Herewith, in response to the number of requests (two by actual count), the Approach chronicles another episode in the fabulous career of Lt. (jg.) Walter Smitty, Scourge of the Skies. Smitty's initial appearance was in the August, 1955 issue. With proper apologies to James Thurber, creator of the original character, the reader is

invited to participate in another "incident," the details of which are based on two actual Anymouse Reports.

Lt. (jg.) Walter Smitty, aviator extraordinary, pilot's pilot, air adventurer, lounged against the coffee mess bar and listened indifferently to the readyroom chatter about him. As always, his lean, hawklike face was inscrutable, masklike. Idly his tapered fingers drummed in time with music from the radio nearby. Rocka-rolla-rocka.

Across the readyroom, elbows nudged into ribs and furtive, respectful whispers marked the presence of Smitty the Sky Scourge.

"That's Walter Smitty," a lieutenant whispered to a newly reported ensign, "The one and *only* Walter Smitty. And believe me ..." The rest of the sentence faded as Smitty's sreely glance flicked about the room.

"Who's Walter Smitty?" The newcomer, Ensign Peavey, was plainly unaware of the reputation of the Sky Scourge.

"Gad, man!" His companion regarded him with pity as he sought to correct this educational deficiency.

"Well," he began carefully, "You know who Lindberg

was, don't you? Did you ever hear of Rickenbacker? Well, now forget them and just try to imagine Jesse James playing Captain Video, and ..." The lieutenant found the task too great and got down to cases.

"Do you know that Smitty once shot off a towbanner?"

"So, what's so amazing about that? Peavey was still dubious.

"Nothing, stupid, except Smitty happened to be flying the tow plane at the time!"

Peavey gaped and stared with unabashed wonder at this marvel of military aviation. At the snack bar, Walter Smitty permitted the faintest of smiles to drift across his face. Abruptly he wheeled toward the door.

"Okay, you tigers!" His voice cracked vibrantly in the stirring language of airmen, "Launch 'em! Let's get that 'ol *Beechcraft* into the blue!"

The other pilots flinched slightly and, eyes averted, chewed vigorously on their hamburgers. Chompa-choppa-chomp.

"Well?" Smitty demanded, "Ain't nobody gonna go with me on this hop to pick up them spare parts at Jax?" The answering silence was mute tribute to the awe in which the Sky Scourge was held. Then the new ensign, Peavey, leaped to his feet.

"Sir, I'd like to go with you." And the young man was suddenly red-faced under the keenly appraising eyes that swept him. The ensign shuffled nervously under the penetrating glance that seemed to ferret out his innermost secrets.

"You a pilot?" With characteristic directness Smitty's question drove straight to the heart of the matter.

"Yessir, designated three months past, sir."

Again the cool, hard look—weighing, testing, searching.

"Okay, let's go, son. A night cross-country'll do you real good."

And the two, master airman and apprentice pilot, strode into the night. In the readyroom, a long sigh from the other pilots marked their departure.

When airborne, Smitty turned the *Beechcraft* to a southerly heading and, as Ensign Peavey watched in appreciative bewilderment, his hands moved knowingly over radio controls tuning in Jax omni. Clicka-scrreecha-squawk. Under Smitty's sure touch the little twin-engined plane bracketed easily between the Atlantic coastline and the Appalachian mountains. Brack-a-braacka-yaw. Nearing Jax, Smitty disclosed further evidence of his legendary prowess as he bird-dogged in on NAS Jax's low frequency range.

Over the range station, the Great Pilot graciously allowed the delighted Peavey to assist.

"Which way's the field from here, son?"

The copilot gulped slightly but was ready with the answer.

"East, sir," and Peavey's heart quailed at the quick frown on Smitty's face. Then the Sky Scourge permitted another of his rare smiles to be visible as his hawklike vision spied a field with a well-lighted runway dead ahead.

"Never mind, son. Course inbound is 269 degrees. There's the field straight ahead." The copilot wagged head, amazed, Egad! The man's skill confounded even the Radio Fac Charts! The RFC showed the inbound bearing to NAS Jax to be 089 degrees from their position! Peavey's heart swelled at the knowledge that he was flying with True Greatness.

On standard tower channel Smitty requested landing instructions of Navy Jax and the acknowledgment came promptly. Landing runway 27. Smitty descended into the pattern and began his normal approach. Vrooma-zooma-vroom.

Below, on runway 27 at Navy Cecil Field, members of the crash crew glanced up from their task of removing a crippled Banshee fighter from where it had engaged the field arresting gear following a landing gear malfunction. The unidentified aircraft on downwind continued its approach, and Cecil tower began to call frantically to warn the airplane of men and equipment on the runway. UHF, VHF and Guard frequencies gained no response. Two signal lights then speared their red warning beams at the Beech. The crash crew scrambled to clear the runway.

In the *Beech*, Smitty unfolded another bit of flying lore to the admiring Peavey.

"Ya see lotsa diffrent kinds of lighting on these fields. That cluster of lights up there at the other end of the runway fr'instance. Some new kinda threshold or boundary markers, I reckon." The copilot bobbed his head in agreement, marveling anew at the uncanny depth perception of the Master Pilot.

The *Beech* touched down neatly, with lots of room to spare, and Smitty allowed the plane to roll out easily with deft touches of braking; Scruncha-scrreecha-scrunch. Nearing the end of the runway the *Beech* jolted over the arresting gear anchor chain and Smitty spat a blistering remark about fouled-up air stations which permitted such a threat to runway operations. Peavey attempted unsuccessfully to imitate the deep growl of the Sky Scourge and, failing, curled his lip scornfully at this sad-sack air station.

Now, as the *Beech* threaded its way towards the turn-off, shadowy figures on either side scurried madly for cover. Pat-a-patta-pat. Smitty's contempt increased.

"Wish they'd knock off that blasted red light blinking over there by the tower—danged thing might confuse a inexperienced pilot. Wait'll I get into operations, I'll tell those characters off."

Peavey nodded firmly, resolving to make a few remarks of his own, say to a line crewman, or even a chief, maybe. He glanced approvingly at Smitty and tried to compress his lips into the same bitter line that creased the mouth of the Great Man.

At Navy Jax, a tower operator peered again into the darkness around the field, and seeing nothing, continued to call the Beechcraft. Some 12 miles west, the Cecil Field operations officer strode the floor in purple-faced wrath as he awaited the arrival of the pilot of the airplane which, unannounced, had just narrowly missed piling into the runway crash equipment.

The operations office door swung open and a lean, hawkfaced pilot strolled in, cigaret drooping from the corner of his mouth as he flicked a negligent glance about the room. Tossing a flight plan towards the duty officer, Smitty yawned broadly and draped himself with unconscious grace over the counter, smoke curling lazily past half-lidded eyes.

"How ya, pal," the Sky Scourge's steely stare was only half-veiled, "Crummy sort of a outfit you folks run here ..."

Across the field, the crash crew paused in their task as a sudden outburst of sound erupted from the vicinity of the operations building. Pow-a-powa-yeww.

The driver of the cherry picker squinted towards the source of uproar, flinching as the noise increased in volume.

"Cheeze!" He exclaimed wonderingly, "I think the hangar roof just blew off!"

1966-1975

New Aircraft:

1968: Developed from the A-6A with an extended cockpit, the EA-6B Prowler makes its first flight.

1971: The AV-8A Harrier arrives in Marine Corps squadrons.

1972: The S-3 Viking makes its first flight.

Important Dates:

October 26, 1966: A massive fire erupts aboard USS *Oriskany* (CVA-34), killing 44, many among the embarked air wing's flight crews. It is the first of three major fires aboard carriers during the war.

August 24, 1968: New NFO wings are approved, replacing the old Naval Aviation Observer wings.

July 20, 1969: Apollo 11 astronauts land on the moon.

April 1, 1970: Naval Air Reserve reorganization creates CVWR-20 and CVWR-30, mirror-image air wings.

May-December 1972: The air war in Southeast Asia heats up. Two Navy F-4 crewmen become the first American aces since the Korean War. Operation Linebacker II sends formations of Air Force, Navy and Marine aircraft over North Vietnam's capital Hanoi in an effort to bring the enemy to the bargaining table.

January 27, 1973: A ceasefire brings the war to an end, resulting in the release of 591 POWs, including 145 Navy and Marine Corps members, all but one of whom were flight crewmen.

April 30, 1973: MGSGT Patrick J. O'Neil retires as the last enlisted Marine Naval Aviation Pilot (NAP) on active duty.

February 22, 1974: Ltjg. Barbara Ann Allen receives her wings as the first female naval aviator.

April 1975: The American presence in Vietnam ends with the Communist advance on Saigon.

May 5, 1975: The first training class for Aviation Medical Officers (AMOs) begins at Pensacola.

July 1, 1975: The aircraft carrier designation CVA is changed to CV, to reflect a multi-mission role rather than simply attack.

These 10 years were dominated by the war in Southeast Asia. It was a time of more changes as carrier air wings (originally called air groups during World War II, from which the term CAG originated) relinquished their remaining piston-engine aircraft to become all-jet groups. The first nuclear-powered flattop, USS *Enterprise* (CVAN-65), joined the war.

While the headlines focused about the jet strikes from carriers, other communities saw considerable action during the war. The last American flying boats, Martin P-5 Marlins, patrolled the labyrinthine waterways of South Vietnam before retiring in 1967. P-2s and P-3s covered the open seas, and H-2s and H-3s made daring rescues. Armed UH-1s flew up and down the South Vietnamese coast, often with OV-10s.

The Navy's workhorse Douglas A-1 Skyraider, more familiarly known as the "Spad," flew combat missions in its single-seat form and multi-seat ELINT variants until 1969.

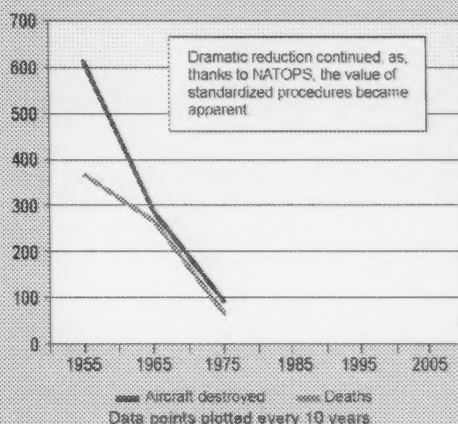
Besides the H-2 and H-3, the CH-46 and CH-53 were the primary cargo haulers, serving in Navy and Marine Corps squad-

rons, again often in the thick of battle. The long-serving H-34 left Marine Corps service in 1969. And we can't forget the CODs, delivering people, supplies and mail to the carriers. C-1s and C-2s did unsung but vital work, as anyone who has spent a month—or more—at sea can attest.

The A-4, F-4 and A-6 formed a partnership throughout the war, becoming the backbone of the Navy and Marine Corps strike groups. This troika soon was augmented by the arrival of Vought's A-7 Corsair II.

New systems, including zero-zero ejection seats and computer-driven bombing gear, were introduced during this time. Commissioning sources, as well as the flight-training squadrons, pumped out officer crewmen, while the enlisted training schools also worked overtime providing qualified maintainers and operators.

Naval Aviation Mishaps



In July 1969, man landed on the moon for the first time, and the first human to set foot on another world was a former naval aviator, Neil Armstrong. Naval Air Reserve squadrons were reorganized along fleet lines. Returning aviators from Vietnam could now fly the same aircraft they had flown on active duty.

The Marines took delivery of their first AV-8A Harrier jump jets in January 1971. The revolutionary vertical-takeoff-attack fighter immediately showed itself to be a colorful new addition to the Marine Corps lineup, but it would have to wait 20 years before it saw its first combat with the Marines.



December 1966

(With his will to survive, plain gut courage and coolness in a combat ejection survival situation, the pilot whose narrative we present here typifies the caliber and training of the Navy fliers performing some of the toughest mission in Vietnam. Here is his story in his own words.—Editor)

As commanding officer of an attack squadron, I led a routine mission against a suspected target

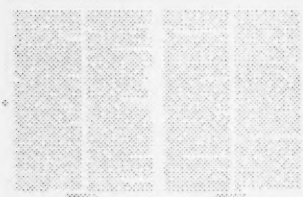
in North Vietnam. My wingman and I launched about 0750 and rendezvoused overhead of the carrier. We departed on top at 0810 and headed for our planned coast-in point. We began our descent from altitude.

Shortly after the coast-in point, we began picking up flak bursts to our starboard side, just north of our track. I called the flak to my wingman's attention and told him to keep jinking. A few seconds later I heard a loud "bang" followed by a "whoosh" and I felt a stinging sensation in my right elbow. I realized I had been hit

and looked down at my right arm. The arm was missing from the elbow down and half of my right forearm was lying on the starboard console.

During the first few seconds I had a hard time convincing myself that most of my right arm was missing, but when I tried to move the stick, I was convinced. I took the stick with my left hand and started to head the aircraft back out to sea. I radioed my wingman that I had been hit, then broadcast "Mayday," giving my side number and general position. I told my wingman to keep jinking and to get clear of the area. My airspeed was dropping so I eased the nose down and tried to hold about 220 kts. The shell frag (I estimate it was at least a 57mm because of my altitude at the time I was hit) had blown out most of the canopy and it was very noisy in the cockpit. The cockpit was quite a mess with flesh and blood splattered over the windscreen and instrument panel. I made a couple of radio transmissions to my wingman to see if he was OK but the wind noise was such that all I could hear was garble. Shortly thereafter I looked in my mirror and saw my wingman was still with me.

My arm didn't hurt but I was bleeding quite badly. I momentarily considered trying to make it back to the ship but realized I would probably pass out before I got



December 1966

there. The nearest "friendly" was the SAR DD stationed about 30 miles to seaward of the coast-in point. I thought I had been hit in the engine as well as the cockpit since I was still descending while holding 220 kts. I thrashed around the cockpit, making radio transmissions, flying the bird, changing tacan channels, and trying to arrest the bleeding by squeezing my right upper arm.

About the time I descended through 2500 ft, I looked at my RPM and realized I had only 70% power. Things had been pretty confusing, and it was the first time I had looked at the RPM since getting hit. I advanced the throttle and the RPM began to build up. The engine seemed to be working properly, and I climbed back to 4000 ft. I heard a garbled radio transmission and recognized the words "your posit." I replied that I was 240/15 from the SAR DD, that I had been hit in the cockpit, that I was bleeding badly and intended to eject as close to the SAR DD as possible. I then called my wingman and told him to tell the SAR DD that I would need medical attention immediately.

There were several subsequent radio transmissions by other stations, but they were all too garbled for me to understand. I was beginning to feel weak and decided I'd have to eject and get my flotation gear inflated before I passed out. As I neared the SAR DD, there was a broken undercast. For some reason, I decided I wanted to see the SAR DD before I ejected.

The undercast wasn't very thick and I descended through it, leveling about 3000 ft. As I broke out, I saw the SAR DD below, churning white water and heading directly for me. I glanced at the DME, which read three miles. Since I was feeling quite woozy, and beginning to experience tunnel vision, I decided to eject. I made sure my heels were on the deck, sat up straight, and pulled the curtain with my left hand. The next thing I knew I was rumbling or spinning. I heard a sequence of several snaps and pops, then felt the bladders toss me out of the seat. Shortly thereafter the chute opened and I seemingly was suspended in midair.

My oxygen mask was still on, and my visor was down. I removed the oxygen mask and dropped it. I looked around. The view was beautiful—blue ocean, white clouds above, and the DD steaming down below. The war seemed a million miles away.

I was feeling pretty woozy and couldn't concentrate on any one thing for very long. I held tight on the stump for a few seconds and then remembered to inflate my C-3 life vest. I inflated the left side first, then couldn't find the right toggle with my left hand. I groped around for a few seconds, then forgot about the right toggle.

I unfastened the left rocket jet fitting and let the seat pack fall to the right. Actually, it seemed to hang between my legs. I attempted to get at the lanyard to the lift raft but with my left hand, all I could reach was the D-ring for the bailout bottle so I forgot about that too. I went back to squeezing my stump and noticed I was still wearing my left glove. I pulled off the glove with my teeth, let it drop, and went back to squeezing the stump. I watched the glove falling lazily a few feet away from me for a while, then shifted my gaze to the DD. I didn't have any vertical reference points, and for a while it seemed I was not falling. I noticed the DD had a boat rigged out and suspended a few feet above the water.

I couldn't think of anything else to do so I just kept applying pressure to the stump and watched my wingman flying in a tight circle around my position. I recognized relative movement when I was just a few feet above the water. I crossed my legs, held my breath, and almost immediately hit the water.

When I bobbed back to the surface, I floated for a few seconds before I remembered to disconnect myself from the chute. The water was warm, with a gentle swell, and there was no discernible wind. The chute had collapsed behind me and all I could see were some shroud lines over my shoulder. I unlocked both Koch fittings and the risers fell away behind me.

The SAR DD was about a half mile away and the whaleboat was already in the water. I saw someone in khaki point in my direction. I muttered a few encouraging curses to speed them on.

I had lost the sense of time passage but it seemed that the whaleboat got to my vicinity quite rapidly. As the whaleboat neared me, the coxswain throttled back and turned away. Apparently he was concerned about running over me. I yelled to the boat that I was bleeding badly, and to drive right in, which the coxswain did.

When the boat was alongside, numerous hands reached out to grab me. I told them to be careful of my right side. After I was resting safely in the whaleboat, my right arm became painful for the first time. Up to that point, I had had just a mild stinging sensation. Someone removed my helmet and cradled my head in his lap. There was a corpsman in the boat and, although I didn't feel him puncture my arm, I was receiving Dextran from a bottle within seconds.

The pain was severe, so I asked the sailor holding my head to break out the morphine syrettes I carried in my left sleeve pocket. He said he had never given morphine so I mumbled step by step instructions. I told him to unscrew the plastic cap and throw it away,

push the wire plunger all the way into the syrette, then pull it out and throw it away. The sailor was obviously shook because he pulled out the plunger and threw the syrette over the side. We went through the whole thing again with the second syrette, this time successfully, and the sailor got the morphine into my arm. I thought I was going to pass out so I told the sailor to remember to tell the doctor that I had been given morphine.

Shortly thereafter we came alongside the SAR DD. The bow and stern hooks were sharp, we latched on smoothly, and almost in one motion, were hoisted to deck level. I was taken down to sick bay where the ship's doctor began working on me. After a few minutes, another doctor from another carrier arrived and introduced himself. In my drowsy state that confused me somewhat. After pondering the thought, I announced that my carrier was closer than his and that I wanted to be returned to *my* ship.

I have no idea how long I was aboard the DD, but recall someone saying "about an hour ago," apparently in reference to my accident. That would have made the time about 0930. Shortly thereafter, I was placed in a stretcher, taken on deck and hoisted into a helicopter. Just before I left the DD sick bay, I insisted that my flight boots go along with me. A couple of my officers had dyed the boots bright blue ... the squadron color ... a few days previously as a joke. This was the first mission I'd flown wearing my blue boots and I didn't want to lose them. The carrier surgeon assured me that all my gear would accompany me.

I don't recall how long the helo trip back to my carrier took. I was pretty well doped up on morphine and quite weak. When we set down on the flight deck I recall two things distinctly: the air boss announced on the 5MC "163 returning," which made me feel better and our flight surgeon spoke to me. Hearing a familiar voice also made me feel better. His comment was, "Boy! Some people will do anything to get out of a little combat!" With friends like that, who needs enemies? I was taken below and into surgery, where among other valiant efforts (eight units of blood) what was left of my right arm was surgically amputated, leaving me with about a six-inch stump.


In retrospect, I can think of some survival procedures I could have followed to more closely coincide with "the book." But it is encouraging to note that the essential things worked. The A-4 Rapec seat, which

is famous for its simplicity and reliability, worked as advertised. My wingman stated that, in addition to the frag that went through the cockpit, my aircraft was "full of holes" and streaming fuel from several places. It is logical to assume that frags could have penetrated the fuselage and damaged the seat mechanism, since my wingman stated the AAA burst was "close aboard" my aircraft. However, it never crossed my mind that the seat would function other than as advertised when the time came to use it.

One half of the G-3 life vest is sufficient to keep afloat a pilot with full combat gear (.38 revolver, ammo, survival vest, RT-10 radio, etc.). The Koch fittings worked correctly after water entry. I merely unlocked them and the riser straps fell away. My .38 revolver and pencil flares, carried in a front pocket of my survival vest, were readily accessible although in the circumstances of my rescue they were not used.

I retained my helmet with visor down throughout the incident until I was in the whaleboat. With the visor down, oxygen mask on, and chin strap cinched, I experienced no facial injuries or discomfort from wind blast, even though the canopy and part of the windscreen had been carried away by the frag. I experienced no difficulties in doing essential things with only one arm, except for access to my morphine syrettes. I carried them in the left sleeve pocket of my flight suit and could not get at them. I recommend that morphine syrettes be carried in a more accessible one-handed location, possibly in a front pocket of the survival vest.

I could not reach the life raft lanyard with my left hand after releasing the left rocket jet fitting and letting the seat pack fall to my right side. During my flight from the beach to the SAR DD, I thought of applying a tourniquet to my right arm stump. I had the nylon cord lanyard attached to my .38 revolver handy, but reasoned that the effort to untie it, get it around the stump, and secured (with one hand and my teeth, no doubt), coupled with flying the aircraft was a tenuous prospect at best. Some thought might be given to a simple, one-hand operable tourniquet as an addition to combat survival gear. Not everyone will have his arm blown off, but there have been several pilot injuries in the Vietnam War where such a tourniquet would have been handy. ◀



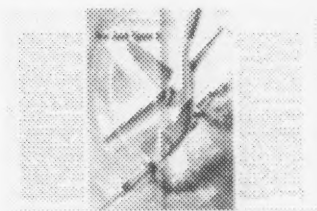
Imagine the
consternation
that would arise
if the PPC of a P-3
crew walked up to
the maintenance
officer and
announced...

We Just Spun It

February 1974

Approach writers (mostly gray-haired old fudds), have become pretty calloused over the years. Whatever unusual tricks that can be done in aircraft, they have either done themselves, know someone who has, or have read about it in an incident report or AAR.

Every now and then, the quiet in the writer's room is blasted by someone who scans a message and announces to all, "Listen! You'll never believe this!"



February 1974

What follows depends on the absurdity of the communiqué. Naturally, not all mishaps are absurd. Some are sad. Some are stupid. Others, unbelievable.

It happened on a beautiful spring day. The weather was great—temperature warm, skies cloudless, visibility 15 plus. A P-3 was airborne on a PUI (pilot under instruction) training flight. A ditching drill initiated by a simulated uncontrollable fire in the No. 1 engine had been conducted (No. 1 engine was actually feathered), using 4,500 feet as simulated sea level.

Upon completion of the drill, the PUI added power on 3 engines and climbed to 4,800 feet. Power was reduced to flight idle on No. 2, with No. 1 still feathered, to simulate the 2-engine out condition.

The PUI eased the aircraft down to 4,500 feet, dropping gear and full flaps. As he reached base altitude, he asked for full power on No. 3 and No. 4 to wave off. His airspeed was 125 knots. The aircraft began a left turn that could not be stopped with aileron and rudder.

The IP pointed out that the aircraft was below Vmc air. To demonstrate recovery, he reduced power on No. 4, and the P-3 returned to a wings-level attitude. (Naturally, the airspeed bled off to 115-120 knots.) The pilot under instruction called for gear up and approach flaps. (Airspeed 110 KIAS.) The IP then took over to lower the nose, but not before the aircraft slowed to 105 knots, at which time a moderate airframe buffet began. The Orion "departed"—100,000 pounds of patrol plane! The aircraft steadily and rapidly rolled left to a 90-degree bank, and the nose fell through in an almost vertical, nosedown attitude—still rolling left. Wow!

The IP pulled power back, leveled the wings after about 360 degrees of roll, and completed his pullout at 1,500 feet. He added power, brought No. 1 back on the line, and scooted for Homeplate.

Postflight inspection disclosed a +2.6G and a -8G reading on the flight station accelerometer. A thorough inspection of the aircraft revealed only a slight buckle on the starboard forward wing fuselage fillet at station 534. Also, there was a slight wave-type buckle in the leading edge fillet, inboard side of No. 4 engine. There were no popped rivets, and no other structural damage was discovered. The inspectors could not determine if the

buckles were caused by this incident.

The PUI's failure to maintain sufficient airspeed resulted in the stall and subsequent departure from controlled flight. Contributing to the unusual sequence of events was dropping below Vmc air with an engine feathered.

This incident did not end in disaster because the IP properly executed unusual-attitude recovery techniques. Further, he had the foresight to have performed the instruction at an altitude twice the "legal" limit. The "legal" limit now, a promulgated in a recent P-3 NATOPS change, is a 4,000-foot altitude for 2-engine out practice (except in the landing pattern) and for ditching drills. Engines will not be feathered during maneuvers.

(The most important aspect of this incident is the fact that it was reported. It takes a big man to tell the world "I goofed."—E.d.)

Let's see what a similar situation looked like. This flight was to be a combination postmaintenance check (after a prop valve housing change) and a PP2P NATOPS check flight. One hour after departure, P-3 debris was sighted floating offshore by another crew.

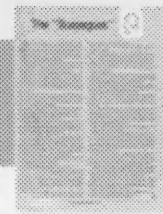
Underwater television revealed the tail was intact, with most control surfaces undamaged. Numerous major components were recovered, such as engines, props, flaps, copilot's overhead instrument panel, and landing gear.

Careful examination disclosed 3 engines had been operating normally, but No. 4 had been feathered. Further, flaps were down and the gear was up. Indications were that the Orion hit the water hard, relatively slow, and in a right-wing down, nose-low attitude. The mishap board concluded that the most probable cause was loss of control or stall while conducting a low-attitude, slow-speed ditching drill.

The similarity between the two instances is marked. Once again in multiengine aircraft, the question of caliber of instruction and instruction technique arises. In the September '72 *Approach*, the article "What, Why, and How" addressed the problem of instruction in operating squadrons. One of the main points in any kind of aircraft instruction is reiteration of a basic aerodynamic principle—maintain airspeed. THE INSTRUCTOR PILOT MUST NOT RELAX HIS GUARD FOR A SECOND. ◀

The "Scapegoat"

November 1974



November 1974

I just couldn't hold onto it. I suspect there was some kind of control failure, or else the downwind oleo collapsed just as I approached flying speed. Maybe a tire blew, but then I didn't touch the brakes during the roll. I had done everything right – complied with NATOPS all the way – but just couldn't hold onto it.

As soon as I saw we were going off the edge, I told my rear seat stick to stand by. I punched us both out as the bird homed in on the arresting gear enclosure.

Funny thing. As the canopy blew and the rear seat "exploded," I thought – perhaps I'd forgotten something. Was there anything else I could have done to save the bird? No! Nothing! I had tried my level best. I was in the clear. ("In the clear?" Where did that thought come from?)

After a quick checkup for me and my back-seater at sickbay, and treatment for a skinned elbow, I went back to the scene where the one winged, seatless Skyhawk perched on its one remaining gear.

The skipper, there with the ASO and Ops, wanted to know how I was and did I feel like talking right then.

"Sure, skipper, I'm OK." Wish I could have said the same for 307. She was a strike for sure.

The safety officer had his duty tape recorder, so we moved away from the immediate site so I could give him my side of the story. (There it goes again! "My side of the story?" What other side was there?)

The ASO started asking a few questions, and I wondered if the mike would pick up our words because of the wind. (Wind? My God! What did the tower say the wind was when they cleared me to roll? It was nearly 90 degrees from the right, but not bad enough to push me off the runway. No. No sweat in that area.)

ASO: You say after Tower cleared you for takeoff you lined in up in the middle of 28?

Me: Right down the centerline.

ASO: What winds did the tower give you?

Me: Uh... let me see. Something like, variable 360 to 010 at around 12 to 15. I remember it was a little gusty. Up to 25 knots or so. But I've never had any problems with crosswinds – especially on takeoff. Hell, I've got close to 2000 hours in the A-4. That should count for something.

ASO: Yeah, you oughta know what the bird can do and can't do by now. Uh, Bob, did you think about aborting when your port tire failed?

Me: What port tire? I mean, I didn't have a blowout – did I?

ASO: Sure did. Take a look at what's left of your port tire. Nothing but threads; the rim's all chewed up.

Me: (That tire had a bunch of plys showing when I preflighted. The troubleshooter wanted to change it, but I told him not to sweat it – that I was only going to make one landing.)

ASO: Another thing. Neither droptank ruptured, and from what I can tell, it looks like your right drop was only half-filled. Didn't you check them visually?

Me: (Half-filled! Hell, they both sounded full when I tapped them on preflight. Damn plane captain didn't have the caps open – and I was in a hurry.)

ASO: Tell you what, Bob – why don't you go ahead and knock off the rest of the day! When you feel up to coming in tomorrow, we'll talk about it. Right now, relax. OK?

Me: (Relax? That's easy for him to say. It's not all hanging out for him. Have one little accident and they twist things around to make you the scapegoat. Why don't they pin it on Mother Nature? The crosswind was her idea. I was just doing my job.)

Well, the CO didn't want me to drive home, so I called my wife to pick me up.

Leaning against the hangar, waiting, I decided that I was a victim of circumstances. This day, this one lousy day, all the odds were stacked against me. I was handling the situation, no sweat, 'til my luck ran out. Should have checked my Bio-Rhythm chart this morning – it's probably a critical day.

If it hadn't been for that complacent plane captain or that idiot who fueled the bird – or if the troubleshooter had gone ahead and changed that weak tire despite my objections – I wouldn't be in the AAR limelight now.

Another thing. Tower should have been more explicit in their wind information. Hell, I was busy briefing that nugget rear-seater on how to contact Departure.

Oh, well, I still think the oleo bottomed out, and I couldn't get full throw on my ailerons into the wind. They'll more than likely find something jammed in the aileron power package – or whatever.

Here she comes. Wonder if she's speaking to me yet after my Happy Hour scene last night? <

New Aircraft:

1976: The Navy accepts the first turboprop T-34C to replace the piston-engined T-34B and T-28C. The AH-1T Sea Cobra joins the Marine Corps after testing by Bell.

1977: The first production P-3C Update II arrives at Patuxent River for evaluation.

1978: The AV-8B Harrier II and the FA-18 Hornet make their first flights at St. Louis.

1983: The first fleet CH-53E is delivered to HM-12.

1985: The Navy buys the F-16N to provide late-generation adversary services for fleet squadrons. The AV-8B enters service with VMA-331.

Development had begun on the FA-18 Hornet. The FA-18 soon became the next-generation Navy and Marine Corps tactical-attack aircraft, eventually replacing the A-4 and A-6.

The ship-based ASW community awaited the Sikorsky SH-60 Seahawk, the replacement for the H-2 and H-3. The three-engine CH-53E was the free world's most powerful heavy-lift helicopter, while the Navy and Marine Corps looked for a replacement for the aging CH-46 fleet.

A new class of nuclear carriers, headed by the USS *Nimitz* (CVN-68), joined operations. Two others, the USS *Dwight D. Eisenhower* (CVN-69) and USS *Carl Vinson* (CVN-70), began

1976-1985

Important Dates:

January 28, 1976: Navy awards a contract for development of the FA-18 to McDonnell Douglas.

May 26, 1976: Beech Aircraft receives a contract for a new multi-engine trainer, the T-44A, a version of the civilian King Air 90.

July 13, 1977: An F-4J lands at the FAA test facility at Atlantic City, NJ, using the microwave-landing system for the first time.

February 27, 1978: CH-53E production is awarded to Sikorsky Aircraft.

June 20, 1979: Flying a C-1A, Lt. Donna L. Spruill becomes the first female naval aviator to carrier-qualify in a fixed-wing aircraft.

October 14, 1979: The first A-6E TRAM enters fleet operation.

April 24, 1980: RH-53Ds from USS *Nimitz* (CVN-68) participate in an abortive attempt to rescue the hostages in Iran. A collision between a helicopter and a USAF C-130 at the landing site results in eight fatalities and cancellation of the mission. The hostages would remain in captivity until the following January.

December 8, 1980: USS *Eisenhower* (CVN-69) is relieved by USS *Independence* (CV-62). "Ike's" deployment had lasted a record 251 days; she had been underway for 152 continuous days.

January 31, 1981: The last NAP still on active duty, Master Chief Robert K. Jones, retires after 38 years of service.

April 12, 1981: The space shuttle *Columbia* launches with an all-Navy crew. It is the beginning of America's reusable space-plane program.

August 19, 1981: Two VF-41 Tomcats shoot down two Libyan Su-22s over international waters. The two Sukhois are the F-14's first kills.

July 13, 1982: LCdr. Barbara Allen Rainey, the first female naval aviator, and an instructor with VT-3, is killed during a training mishap.

February 21, 1985: The USS *Constellation* (CV-64) battle group takes the FA-18 and SH-60B on their first deployments.

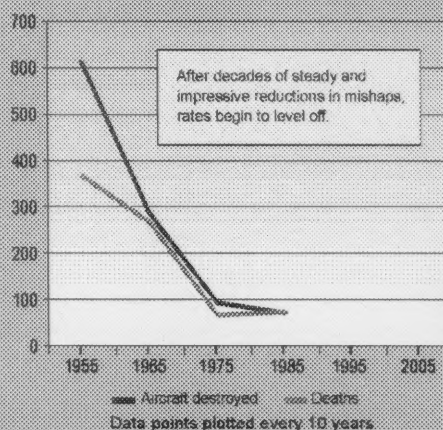
By 1976, we were out of Vietnam, women had begun flight training in earnest. The F-14 Tomcat and S-3 Viking were joining the fleet. Carriers were designated CVs, replacing the CVA to indicate the overall mission.

construction. Nuclear-powered carriers allowed the Navy to reduce the number of carriers and increase at-sea periods.

Beginning in November 1979, carrier task forces often spent six months on station in the Indian Ocean or in the narrow confines of the Gulf as the Iranian hostage crisis continued without diplomatic resolution until January 1981.

In late 1983, aboard USS *Independence* (CV-62), the air wing supported the U.S.-led invasion of the Caribbean island of Grenada to liberate American citizens held hostage. Aircraft from USS *John F. Kennedy* (CV-67) flew the first alpha strike since Vietnam in response to the bombing of the Marine barracks in Beirut, Lebanon.

Naval Aviation Mishaps



THE TEN COMMANDMENTS OF THE LANDING SIGNAL OFFICER (LSO)

By LCdr. M. R. Groothusen, CVW-8

November 1984

I. THINE EYES BELONG IN THE GROOVE

This may be the most difficult law to impress on the new LSO. A multitude of aircraft have been saved long before the ball call. The controlling LSO doesn't have to look at the book or book writer to make his comments, and looking up the deck should be a backup LSO task. Secondly, the 180-90 or CGA portion of the pass undoubtedly affects the pilot's start and may be the true cause of difficulty vice technique once on the ball.

II. THOU SHALT NOT ACCEPT GARBAGE

It has been said that the three greatest killers of naval aviators have been "Pride, Fear and Hurrying." I see this relating to the pilot-LSO team as such: The pilot can salvage any pass, whereas the LSO can successfully wave anyone. The pilot fears the penalty box and his LSO the pressure (real or perceived) to get him aboard. In their haste, the pilot makes the large play in close while his LSO allows waveoff-window creep.

III. THOU SHALT CONSIDER SAFETY ABOVE ALL ELSE

The underlying reason for all we do as LSOs. If you cannot stand the heat from above or below, and you compromise this most important task, you do not belong on the platform.

IV. THY HANDSET SHALL COMFORT THEE

The controlling LSO must never lose situational awareness. Far too many times aircraft emergencies or pilot difficulties are passed by means other than UHF. Those supporting the platform have to be extra eyes and ears. During CQ or flex deck, change controlling LSOs often in order to avoid fatigue. Platform speakers are not that reliable to take a chance at missing valuable information. Keep the handset to your ear!

V. THOU SHALT NOT REDIRECT ATTENTION

The backup LSO's corollary to number I above. Assign another team member to talk on the phone or MC. You are an all-too-important check valve to have your total concentration interrupted.

VI. THOU SHALT NOT PREDICT A CLEAR DECK

We are not in this business to play the odds in a detrimental fashion. Either there are men, equipment

or aircraft in the landing area and we move the waveoff window aft or we wave the aircraft to a normal waveoff point. Back row kibitzers, put away your crystal balls please.

VII. HONOR THY PLATFORM AND EQUIPMENT

All too often LSO equipment problems and malfunctions have found their way into mishap reports, and usually we have only ourselves to blame for its status. Gripe your equipment religiously and follow up on it. Some air wings even use MAFS for this purpose. A word to the phone talker or call to primary just does not hack it. See that a complete MRC deck exists or produce one locally.

VIII. THOU SHALT USE THY TRAINING AIDS

The pickle switch is the best pilot training aid you have at your disposal. Consistent errors or flagrant disregard can strike home more rapidly this way. Motivational strokes, positive or negative, during debriefs are a must. Analyze the pilot, and treat accordingly.

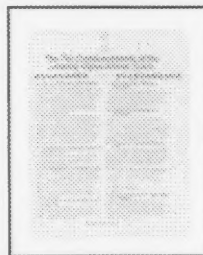
IX. THOU SHALT NOT COVET IGNORANCE

LSOing starts in the readyroom where you not only train your pilots but also ensure an understanding of our hierarchy on the platform:

1. Safety
2. Expeditious recovery
3. Hands-on LSO training
4. Grading

X. THY DILIGENCE IS THY TASK ABOVE ALL OTHERS

As any active participant in aviation, you must always check six and keep your guard up. Being an LSO, not unlike a pilot, is fun, demanding and a rewarding job but you can never lose sight of the fact that lurking out there is someone trying to kill himself, you or both!



November 1984

"5977 and the Next 50 Years"

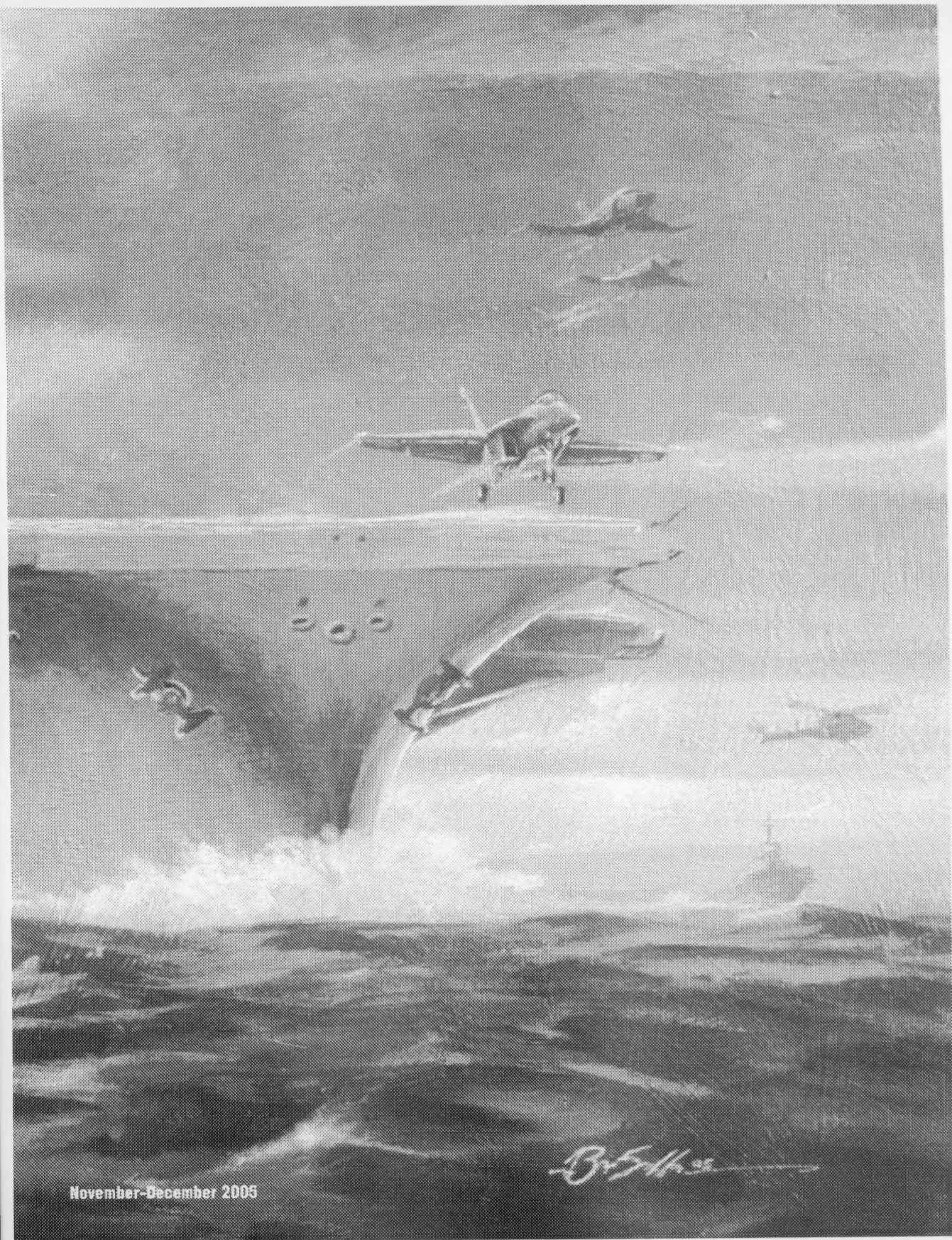
By Bryan Snuffer

Painted in 2005 for the Naval Safety Center's *Approach* magazine's 50th anniversary issue. The painting depicts the not-quite-yet deployed USS *George H.W. Bush* (CVN-77) in the foreground, and the USS *Forrestal* (CVA-59) in the background. An FA-18E Super Hornet launches from bow cat No. 2 as the first of her air wing launches soon after commissioning.

Two F-4J Phantom IIs fly into the break alongside her port beam as they were launched in the past from the newly commissioned USS *Forrestal*. The *Forrestal* Class carrier was greatly improved over the *Essex* Class carriers of WWII (still in service at the time), as it could launch and recover the larger jet aircraft of this day.



Approach



November-December 2003

Touch-and-Go with the Grim Reaper

By Lt. Gordon Heyworth
VF-171
Det Key West

December 1989

THE stench of jet exhaust and scorched tires and the deafening roar of a *Phantom*, just snatched out of the blackness, drift down the flight deck. Four sets of eyeballs return seaward, scanning the glide slope for the next triangle of lights above an unseen horizon. "Geez, he's below the..." LSO-1 stopped short and keyed the UHF, "201, watch your altitude!"

The lights continue to settle slowly below the planeguard's masthead light.

"201, watch your altitude!... Don't go lower!... CLIMB!" pleaded LSO-1. Frustration, horror, and grief pervade the platform as the *Phantom's* lights are snuffed out 1½ miles behind the carrier; with them go the lives of its crew.

Setting: The office of the Grim Reaper—two aviators in wet flight gear.

Reaper: Holy meatball, line-up, angle-of-attack! Let me guess...night CCA...yep. Been gettin' a lot of you guys over the years. Can spot 'em a mile away. No pun intended!

Pilot: I hardly think...

Reaper: Yeah, yeah. Don't like me making light of your misfortune? Tell me, Sport, anything mechanically wrong with that airplane you flew into the drink?

Pilot: Why, no, but...

Reaper (to RIO): And you, young fella, I suppose you were just along for the ride?

RIO (protesting): No, sir...my instrument lights didn't...

Reaper: Lights, schmights! That doesn't change a thing, does it? You two flew into the water. Look, I've been at this business a long time and I've seen more young, capable guys in front of me because of a moment's breakdown in instrument scan or just plain poor flight discipline. After witnessing so many ramp strikes and other senseless fatalities like your own, one just stops feeling sorry for the victims. You guys are responsible for your demise.

Pilot: Well, I had a lot of help.

Reaper: All right, self-righteous one, let's hear your story. (*Aside—You can always tell a fighter pilot, but you can't tell him much.*)

Pilot: In retrospect, I suppose the deck was stacked against us. But if I thought it would come to this, I'd have blown the whistle. The ol' can-do spirit got us, I guess.

Reaper: How so?

Pilot: Well, we started bouncing for this REFTRA 26 nights ago, my last three double FCLP periods having been the 7th, 9th, and 10th nights.

Reaper: I'm confused. Get to the point.

Pilot: What it boils down to is that I haven't had a night bounce period or a night hop in the past 17 days. I did all right at the boat yesterday and this morning, getting my one touch-and-go and 5 day traps, but that 17-day layoff sure caught up with me tonight. It wasn't like we weren't scheduled during that 17 days. In fact, we briefed five of the nine preceding nights. Briefs started anywhere between midnight and 0200. Problem was, maintenance was strapped for parts. We were low supply-priority 4 months prior to deployment. No jets—no fly.

Reaper: Sounds grim...

Pilot: ...to the tune of having only one or two "up" aircraft a night after a full day's schedule.

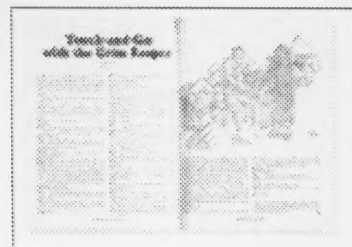
Reaper: Did you bring this to anybody's attention?

Pilot: Yeah... I talked to the Ops officer, but I was preaching to the choir. No one was getting his periods flown, and there were more junior pilots than I who were understandably higher priority. 'Your can hack it,' the Ops boss said. Of course, I agreed. Boy, were we wrong.

Reaper: The record is written in blood.

Pilot: That's not all. The clincher was that the bird we launched in had no instrument lights in the rear cockpit.

Reaper: Bad idea. So the young RIO here *was* along just for the ride.



December 1980

Pilot: Well, we didn't want to miss our overhead and have to come out to the ship again tomorrow night. I like being home at night as much as the next guy. At least I *used* to.

Reaper: Instrument lights...I don't understand how that alone...

Pilot: It wasn't just that. It was, typically, "all the wrong things happening at the right time."

Reaper: How so?

Pilot: Off of a bolter, I established a good rate of climb toward 1200 feet and then commenced my downwind turn, shifting attention to roll-out heading, abeam position, etc., anticipating our next approach. Noticing that I had ballooned up to 1800 feet, I eased it down to 1400 (my usual 1200+200 gravy). On base leg, the ship called for a descent to 600 feet for a surveillance approach, at which time the TACAN started spinning. The final bearing also was changing, so here we were in a rate of descent, turning inbound, looking outside for the ship and lineup lights. If that wasn't enough, remember ballooning to 1800 feet? Make that 800. Yep, I misread the altimeter by 1000 feet in my haste to turn downwind and preoccupation with everything else. My descent out of 1400 for 600 was actually out of 400 for...well, you know the rest. If only *Paddles* could have called a few seconds earlier.

Reaper: Famous last words. You know...[phone

rings]...excuse me...Reaper here...yes sir...yes sir, they're right here in front of me...I see...right away sir. [Hangs up phone.] You guys are in luck. I have it from higher up that you're going back and recover your aircraft at 200 feet when the LSO first called you. This is extraordinary, but it happens on occasion...

Pilot: You mean?...

Reaper: I mean get your butt on the gages, wave off, and take that aircraft home. You get a good night's rest 'cause you've got to finish quals tomorrow night. Oh, and while you're at it, why not share this experience with your cohorts.

Pilot: Roger that!

Back on the platform

LSO 1: ...Wave it off, 201...What's the problem?

CATTC: 201, climb and maintain 1200. Upon reaching, turn left 270.

201: 201 is RTB for cockpit lighting failure.

CATTC: Roger, 201. Signal Bingo; gear up; hook up; steer 282 for 78.

201: 201, Wilco.

The story above is fictitious where obvious. All other details are true. In fact, the LSO calls were received in time to avoid needless catastrophe. The author will be forever grateful for this service from the platform.



Double Flameout Or How to Ruin a Box Lunch



June 1983

By Lt. Gary C. Bowser, HC-6

June 1983

I was eating my apple when it happened—a loud bang aft. At the same time, both engines of our H-46 *Sea Knight* were winding down. The HAC immediately entered an autorotation and turned toward the beach, approximately two miles away. What was going on?

I was the copilot with 60 hours in model, while the HAC had around 13 years flying in the Navy, a mismatch to say the least. We'd just dropped a high-ranking admiral off at a nearby Air Force base and were returning to USS *Ship*.

Being a good copilot and of obviously lesser rank (LTJG to CDR), I'd flown our aircraft while the commander ate his box lunch first.

After approximately 40 minutes we switched control, and my turn for lunch arrived. The visibility was not very good, and the HAC instructed me to keep a good lookout for other aircraft.

That's when we had our double flameout at 1,100 feet. I quickly forgot about my box lunch.

The HAC asked for power management system off and yelled for a restart. I did the first, but the second command was confusing. I hadn't had a chance to look at the gauges yet and took time now to do so. The engines had indeed quit, and I watched the rotor RPM decrease and stop at around 70 to 80 percent. I took this as a hint and attempted several restarts. The whole event didn't seem real, and how could it? I was just sitting there eating lunch a few seconds ago, right? In 20 to 30 seconds, the aircraft went from 1,100 feet to a splash. Before impact, I looked up from my last engine restart attempt and could see the pilot was well in control of the aircraft. This reduced my worries somewhat.

We hit the water with a little forward airspeed,

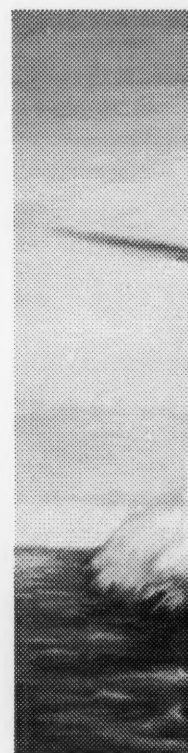
and I was immediately under water. The aircraft broke apart at station 410 and the aft transmission, blades and engines went their own separate way. The forward section rolled right and became inverted, just barely floating. All inside were now underwater. After the pressure stopped holding me down, I was surprised to find myself still in my seat. I'd felt as if I'd been thrown through the front window. Visibility underwater was near zero. My only thought was to escape.

I found my lap belt easily because I wasn't wearing flight gloves. I had removed the gloves, not because this was an overwater flight and I had the option according to 3710.7K, but because I'd been eating lunch 30 seconds earlier and didn't want hydraulic and engine oil mingling with my food.

Before releasing my lap belt, I stopped and remembered that I needed to find a reference point, something I'd remembered from my training in the helo dunker (9D5).

Reaching for the door, I found it wasn't there. I may have released it already, I don't know. That was my last thought before impacting the water. I finally located the door frame with my right hand, released the lap belt with my left hand, and, using both hands, was successful in pulling myself out of the seat and clear of the aircraft.

Swimming toward a light above, I popped to the surface and found myself bouncing off the aircraft and looking at the nose wheel. I pushed off with my feet and started swimming away (mild panic)



Approach

while spitting out pieces of the apple I'd been eating for lunch. I checked the pieces carefully, because I first thought I was spitting out my own teeth.

Around 10 feet away from the aircraft, I stopped swimming and my head went underwater. I took this as another big hint and decided to inflate my LPA. One-half worked as advertised; the other did not. The current then pulled me farther away. Two other crewmembers surfaced, but one did not. One crewman swam back to the aircraft to look for the missing man but the current quickly pulled him away. The aircraft was lost, but worse, one life was lost at sea.

Lessons Learned.

- The helo dunker training works. It cannot duplicate the water impact but everything else was very close to the real thing.
- The left set of beads was not pulled on my LPA; my fault, sorry.
- If box lunches are served, make sure one pilot still has control of the aircraft and both are not eating at the same time. We ate separately; had we not done this, who knows what might have happened.

- I tried to use my PRC-90 and call for help. When the rescue helo arrived, I let go of it and watched it sink from sight. I then remembered three hours earlier when putting the radio in my vest I had told myself, "If I need the radio I'll just tie it on the vest after I get it out." Luckily, I didn't need the radio again, but what if we'd been 20 miles out at sea rather than close to shore and help was not so quick?

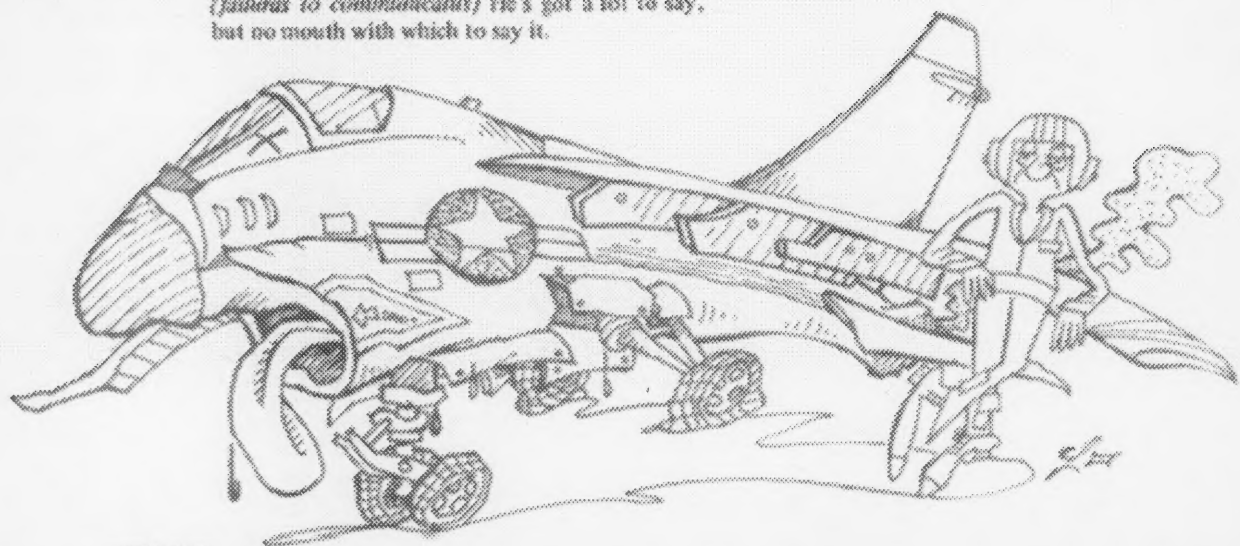
The aft section with the engines and aft transmission was not found and no definite cause could be determined. No lesson here.

My attitude about accidents has changed since my mishap. "Why not me" actually became "me." It would be easy to say "Well I've had mine," and go on, but that would be the easy way out. "Why not me, again?" is possible, but that does not seem original and sounds more like a sequel. The whys will always be there in naval aviation. After all, human and mechanical errors are hard to eliminate completely. Why not do all we can to keep the statistics low? I doubt if the questions will ever end, but hope certainly cannot end as we press toward that zero mishap rate. ◀



COMMplacentius

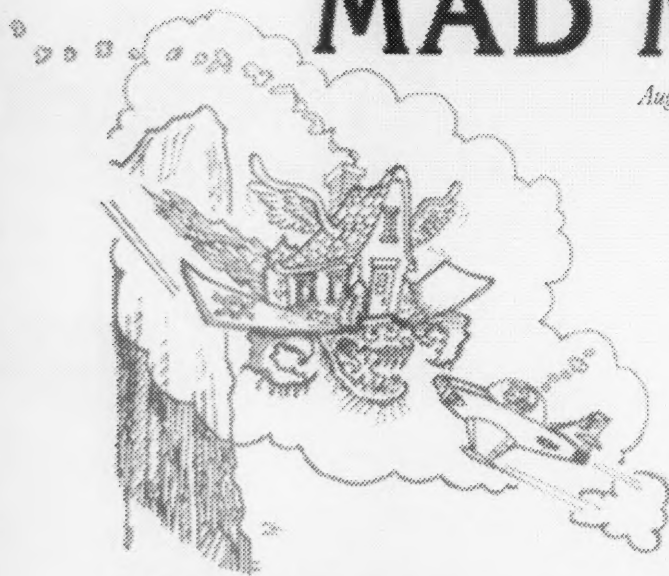
(fallaxus to communicatus) He's got a lot to say, but no mouth with which to say it.



THE

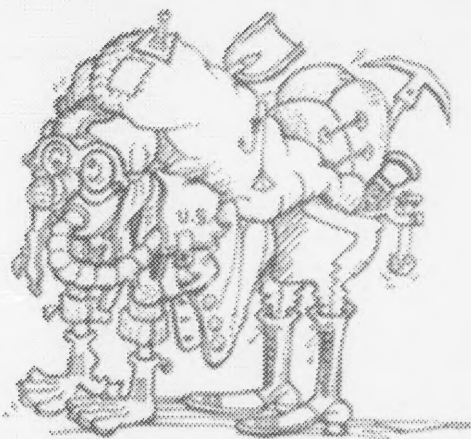
MAD MONSTERS

August 1979



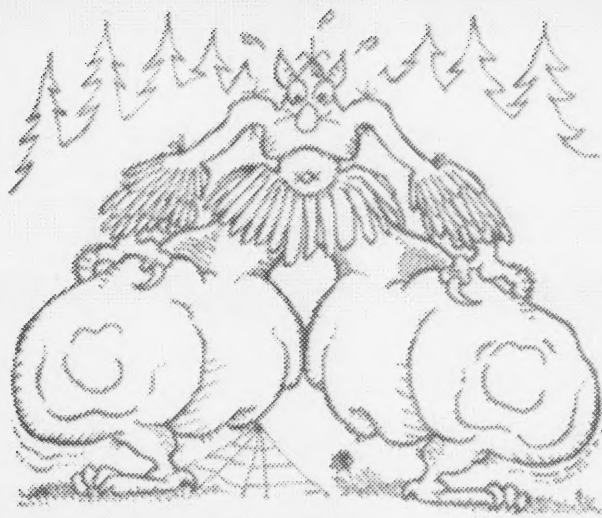
GETHOMEitius

(homingus pigeonus) This hardshelled creature endears you with its warm, house-like facade right up until it hits you between the intakes! It turns up most often after unscheduled delays and just prior to vacations.



ANTIQUAgearius

(preservus deflatus) A prehistoric denizen of the deep and of the steep -- he has been known to fly, and may get you if you don't get to him first.

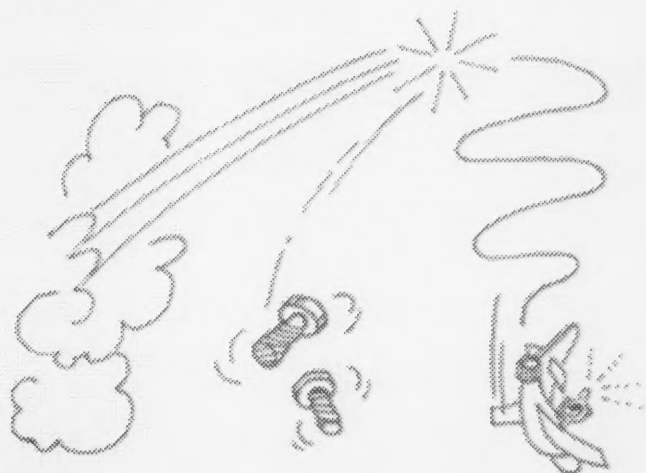


KNEEGlectius

(*knockus kneesus*) Often this monster just creeps up on you. Symptoms: you can't see the forest for the trees or your toes for your knees.

LOOSEboltius

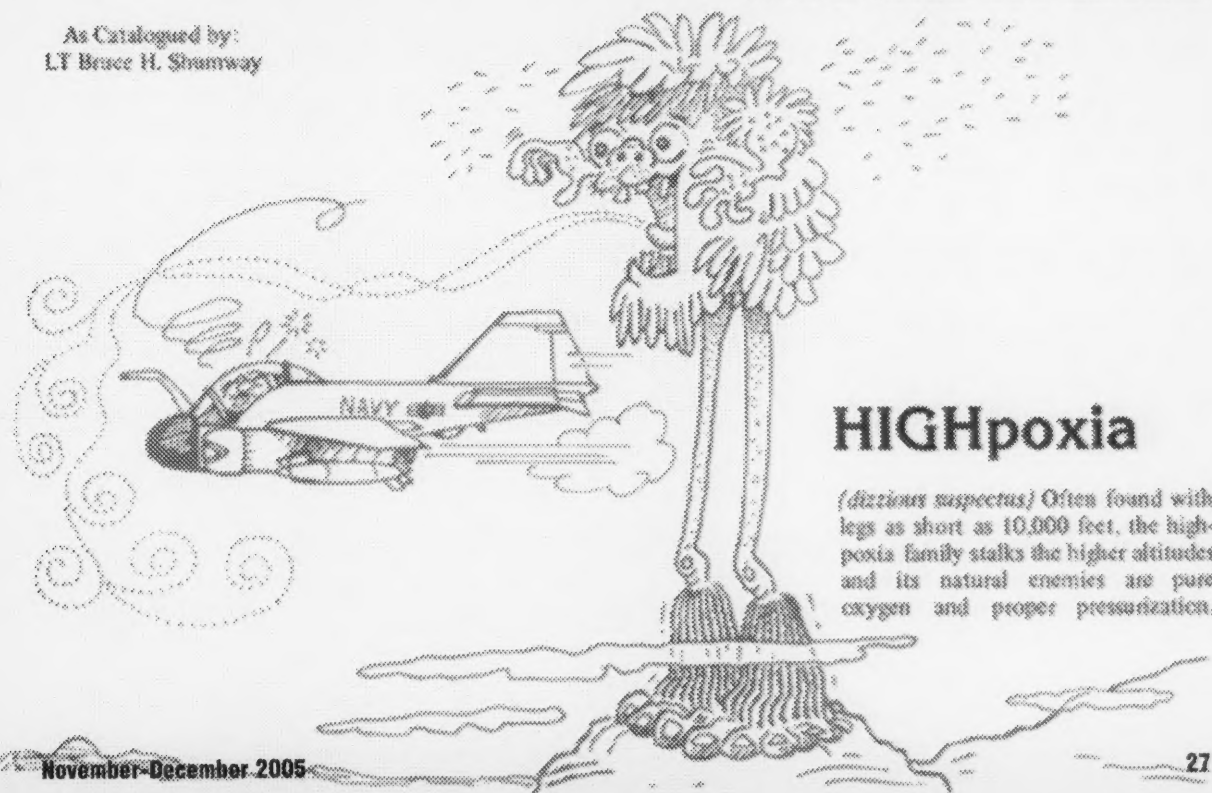
(*engine cool quatus*) Gone in a flash – but you won't know it until it's too late – you've got to keep a tight rein on them.



OF THE AIR

Presented by the
'Mad Foxes' of Patron 5

As Catalogued by:
LT Bruce H. Shumway



HIGHpoxia

(*dizzious suspectus*) Often found with legs as short as 10,000 feet, the high-poxia family stalks the higher altitudes and its natural enemies are pure oxygen and proper pressurization.

New Aircraft:

1987: The E-6A Hermes makes its first flight. The aircraft was later renamed Mercury, the Roman version of the Greek Hermes.

1988: The T-45A Goshawk makes its first flight.

Important Dates:

January 28, 1986: The space shuttle *Challenger* explodes shortly after launch, killing the crew of seven astronauts.

March 24-25, 1986: Two carrier task forces send strikes against Libyan targets after SAMs are fired against Navy aircraft, and Libyan gunboats menace the American ships in open waters.

May 2, 1986: The Navy initiates a contract for development of the V-22 Osprey tilt-rotor aircraft to replace the CH-46.

January 4, 1989: Two VF-32 Tomcats down two Libyan MiG-23s.

July 12, 1990: Cdr. Rosemary B. Mariner becomes the first

In 1986, naval aviation celebrated the 75th observance of Eugene Ely's landing aboard and taking off from the same ship in January 1911. The same year also saw naval aviation units engage in a mini-war against Libya in March and April. These actions were the combat debut of the FA-18.

Throughout this period, new aircraft continued to join operations. This transitional phase was typical of times that include changes in equipment. The fleet had a mix of older aircraft like the A-6 and F-4, while newer types like the FA-18, AV-8B and new models of established aircraft like the E-2C, EA-6B and F-14 filled out squadrons at the so-called "tip of the spear."

Two worldwide events deeply affected all American military services, the demise of the Soviet Union and the Gulf War of January-February 1991, now referred to as Gulf War I. The West had

1986-1995

woman to lead an operational aviation squadron when she assumes command of VAQ-34.

January 17, 1991: Naval forces makes first strikes of Operation Desert Storm aimed at evicting Iraq from Kuwait.

July 31, 1991: The Congress votes to permit women to serve in combat units.

August 19, 1991: The Naval Air Reserve celebrates its diamond anniversary.

January 13, 1992: The Navy and Marine Corps integrates VMFA and VMAQs into carrier air wings.

August 27, 1992: Operation Southern Watch begins to enforce the no-fly zone over Iraq.

September 4, 1992: Cdr. Linda V. Hutton assumes command of VRC-40 as the first woman to command an Atlantic fleet squadron.

December 9, 1992: U.S.-led forces land in Somalia for Operation Restore Hope. Marine Corps helicopters cover the landing in concert with aircraft from USS *Kitty Hawk* (CV-63).

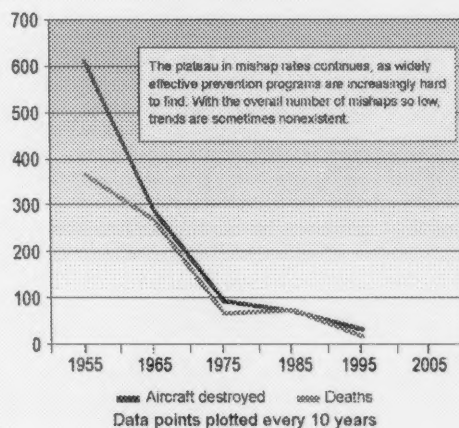
October 15, 1993: Aviation Officer Candidate School is consolidated with Officer Candidate School (OCS), and will take in aviation and non-aviation officer candidates.

July 31, 1994: Lt. Kara Hultgreen of VF-213 becomes the first woman to carrier-qualify in the F-14. She is killed on October 25 during another CQ period. Her RIO ejects and survives.

December 20, 1994: Mr. Robert C. Osborn dies at age 90. He had drawn safety cartoons for the Navy and Marine Corps for more than 50 years. Dilbert and Grampaw Pettibone were his best-known characters.

The mid-1980s began with a splash, a public affairs officer's dream: a blockbuster movie, "Top Gun." The real world was much less explosive, but for naval aviation, it was still a time of bringing new aircraft and programs on line while dealing with a shrinking budget and fleet. By the end of the decade, ships and aircraft were beginning to leave service, with replacements unable to fill in the gaps. But the naval services met their responsibilities as they deployed around the world.

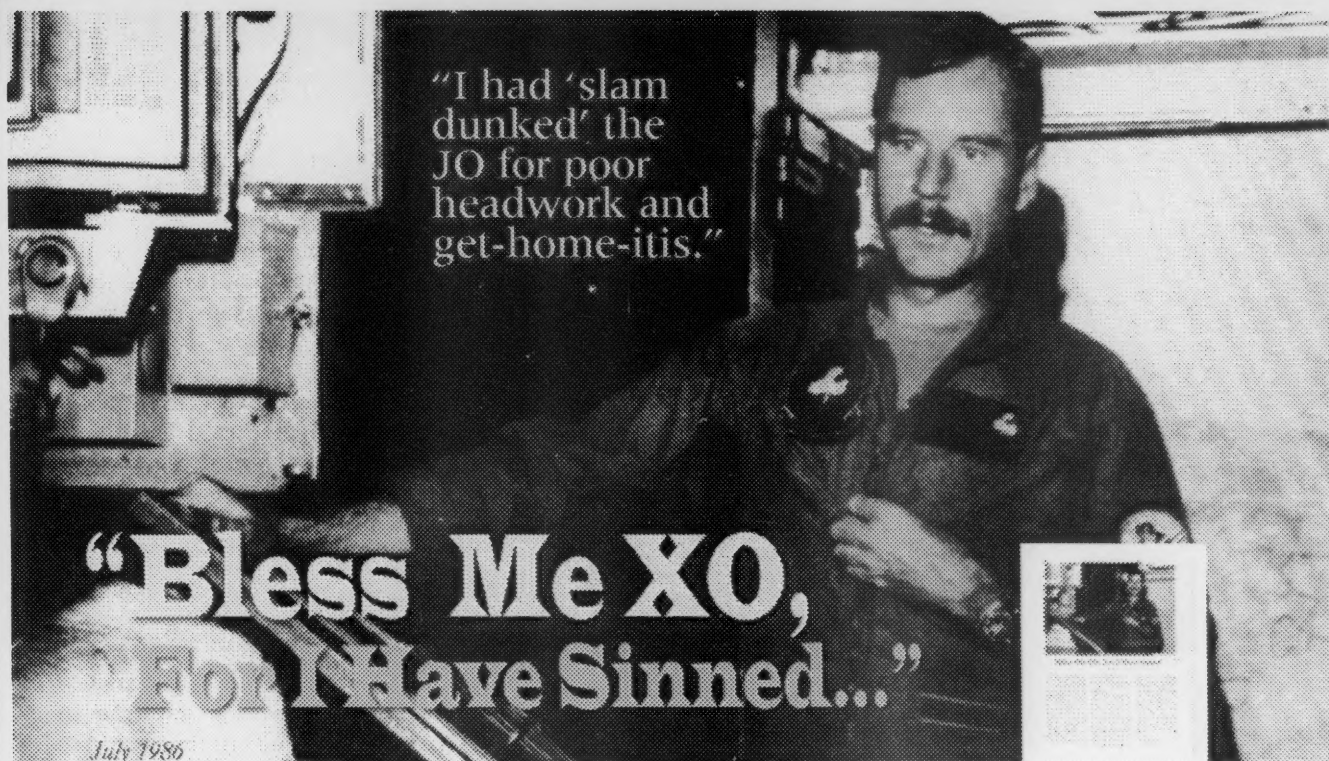
Naval Aviation Mishaps



won the Cold War, but the future was dramatically uncertain.

Instead of planning and practicing for either a nuclear war or wide-ranging conflict across Europe, America and its allies in NATO found themselves trying to help former members of the USSR prepare for and deal with their new independence.

When Iraq sent forces into Kuwait in the early hours of August 1, 1990, the U.S. organized and led a six-week war against the Iraqis, ousting them from Kuwait. All our services participated, and every type of aircraft in the arsenal saw action.



July 1986

By Cdr D. R. Bouchoux

I sensed it was wrong from the moment I finished. While what I had said was true, the forum and my manner were wrong. At an AOM, in a latter-day episode of "True Confessions," a junior officer had related an experience from his past weekend's cross-country which involved landing at a field fraught with dangers. Taking advantage of the XO's next-to-last work spot in the AOM lineup, I had "slam dunked" the JO for poor headwork and get-home-itis. In looking around, though, uncomfortable expressions covered the faces of the other JOs, as if to say, "If he hadn't admitted it, he wouldn't have been chewed out." I could sense that in the future, they all might be reluctant to admit to errors in judgment.

Having mulled this over that night, I called the JO into my office the next morning to explain that, while I still thought that he had displayed bad judgment, the public defaming was not warranted; I encouraged him to continue to share such (hopefully rare) instances from which we could all benefit. At the next AOM, I also explained this to the assembled horde.

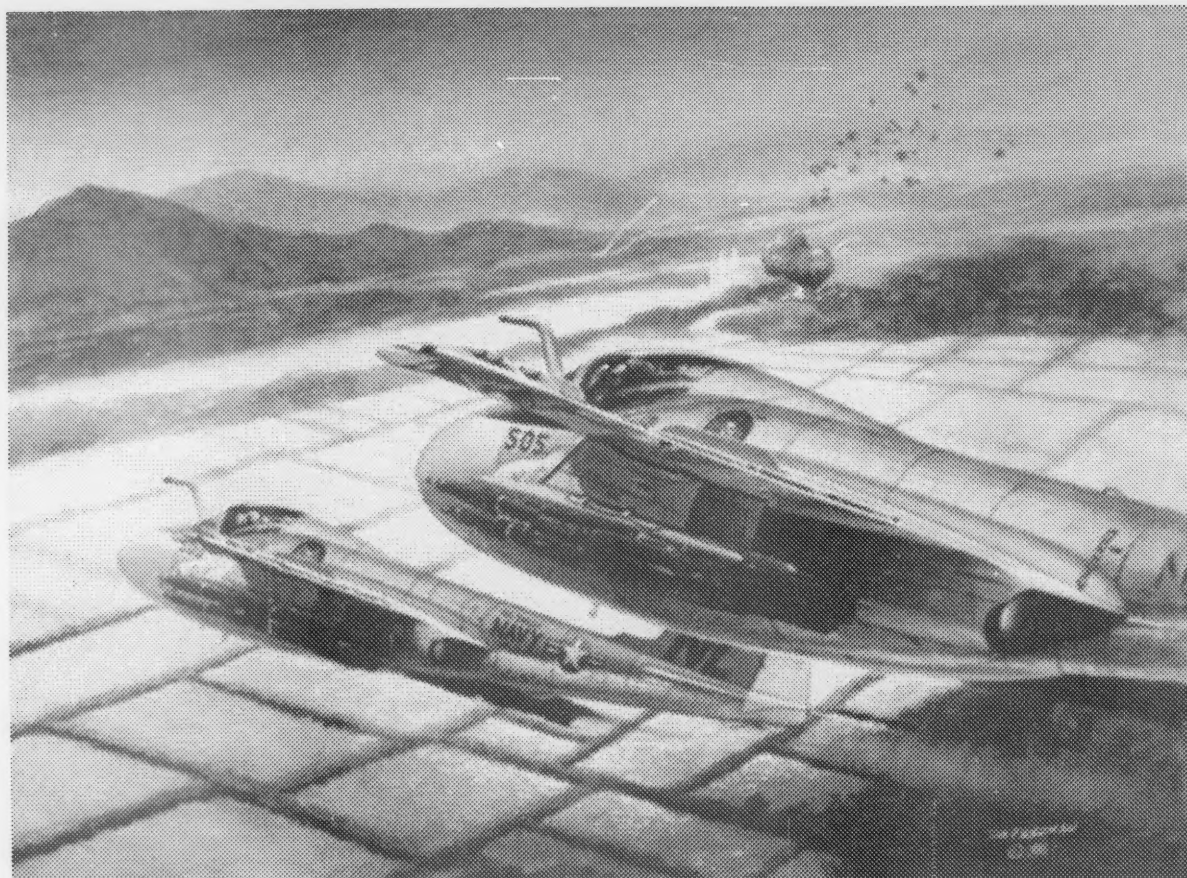
On the formal side of aviation safety, Mishap Investigation Reports are held sacrosanct and apart from the legal system, either civil or military. This enables the Navy to investigate mishaps in an atmosphere of total honesty and to learn the maximum number of lessons

from the experience. For less severe occurrences and in a much less formal arena, "true confessions" at an AOM can provide the same sort of forum for lessons learned. To be effective, though, the spectre of public reproach must be absent, whether from superiors or peers. The act of admitting to less than perfect judgment underscores the realization that the action taken could have been better; if more direct counseling is deemed necessary, it can be handled privately. The verbal give-and-take in discussing an event, as well as the description of the circumstances, can prevent the recurrence of similar incidents that could have more disastrous consequences. The command that fosters such self-analysis will also find that it benefits all aspects of their operations. Instead of just being able to say, "We were sure lucky on that one," everyone can derive valuable training.

Just as it isn't nice to fool mother nature, it isn't nice to surprise the XO at an AOM. If it is a safety item that is the cause of the surprise, however, a "go for the throat" reaction will only stifle the ability of the command to learn from mistakes.

Cdr. Bouchoux is the executive officer of VF1. He has served tours in F-4s and F-14s and has logged over 700 arrested landings.





The World's Greatest Attack Pilot

By Stephen Coonts

August 1987

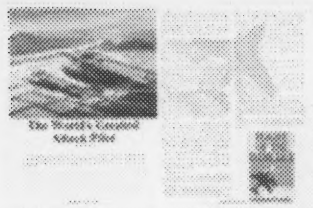
When I was last published in *Approach*, it was as an anonymous (thank God!) nugget explaining to the world how one goes about landing at the wrong airport. The wrong airport was Fallon Municipal. It turned out I was one of three fools who had done the same thing, though at three different places, and our written confessions with names changed to protect the guilty were published in one article. My skipper told the CAG that a lesser pilot than Coonts would have killed himself landing at Fallon Muni at night, but the CAG shot back that a better pilot wouldn't have landed there at all. I did get a good lesson out of it though, and

I'm still alive after 2,000 hours in jets, none of which I ever bent up.

"Sam, what do you think of all these accidents lately?" Jake Grafton was lying on his bunk flipping through *Approach*. "We were doing real well on the accident rate, then all at once there's a rash of crashes."

Sammy Lundeen leaned back in his desk chair and dolefully regarded his roommate. "All the nonhackers are paying the price. They just don't have the 'pure, righteous stuff,' like I do."

"Cut me some slack. I'm serious."



August 1987

Lundeen tilted his chair precariously and propped his feet on his desk. "OK; my humble J.O. opinion. Anyone can have an accident if he gets careless, even if just

for a little while. You have to be on top of the game every minute in a cockpit. If you let down for any reason, you're asking for the shaft. It can happen to anybody, any time, any place."

"Is that the voice of experience?"

"Yeah," Sammy said defensively. "Yeah. I've made my share of mistakes and almost cashed out a time or two. I'm big enough to admit it. The first few times in the training command, it was ignorance. I just didn't know enough to realize how thin the ice was. But the scariest mistakes were afterwards, in the fleet, when I knew what to do and still got too engrossed in one task, or was too tired and spaced out to get the big picture."

"What was the worst mistake you ever made?"

Sammy shifted uncomfortably in his chair as he rubbed his jaw. "I guess the closest I ever came to the fiery pit was on a night dive-bombing run on Route One in North Vietnam, south of Vinh. We were looking for movers and couldn't find any. For once no one was shooting. When they don't shoot over the beach you get jumpy, edgy. Then we saw this little light right on the road. It looked like a stopped truck. So I figured what the hey and rolled in with four Rockeyes."

"And..."

"I was so intent on the pippin, I didn't keep my wings level. By the time I figured that out, I was steep, which I didn't notice. Then after I pickled, I waited too long for all the Rockeyes to go. Training them off a third of a second apart, it's a lifetime from the instant you pickle until the last one goes. So when I finally looked at the altimeter, I was going through a thousand feet, 20 degrees nose down; and I still had 12 Mark 82s under the wings and 10 thousand pounds of fuel." Sammy fell silent and waggled his feet thoughtfully.

"But you managed to pull out," Jake prompted.

Lundeen sighed. "It was too late to eject. I pulled 9½ Gs, bottomed out at 50 feet on the radalt. Thought I was dead then and there and had killed my bombardier." He examined the soles of his shoes. One of them had a hole in it. "Man, I shook for days after that one."

"What went wrong?"

"A combination of things. I didn't set the radar

altimeter to my pickle altitude to give me a warning. Then I was jumpy waiting for the guns to open up and didn't concentrate on flying a good run."

"So after an experience like that, how come you're always telling people you're the world's greatest attack pilot?"

Sammy's eyebrows rose toward his hairline.

"Because I am! You see, after I about made a spectacular 12 o'clock hit, I decided that accidents could happen to anyone who gets complacent, and I mean anyone.

Even me. So I stay in shape, get all the rest I can, and when I get into that cockpit, I work like hell until I get out. I don't take anything for granted."

"The grind can be real tough though," Jake admitted. "Especially when it's your second or third flight of the day."

Lundeen nodded. "Other guys might be better sticks than me, they may occasionally get better hits, and they may even have more talent; but no one works as hard as I do at flying. No one works as hard at mastering his art. So I'm going to be there dropping those bombs until the bad guys get me or my plane comes unglued. But I am not going to kill myself!" He flipped his hand. "That's why I'm the world's greatest. I work harder, every flight, every day."

"That reporter, Rucic? He told me a few days ago that the guys who are going to get ahead in naval aviation are the Mister Peepers, guys with zero aggressiveness who fly like they were driving Air Force One."

"The planes cost too much to let hot dogs crack 'em up," Lundeen grunted. "But I still think you can fly aggressively and not have accidents. The secret is to approach every flight, even the most routine, as if it's your solo check ride in basic. Don't let complacency sneak up on you. 'It' may only come out of the sewers every 28 years, but if 'it' latches onto you, you're going to lose a chunk of hide."

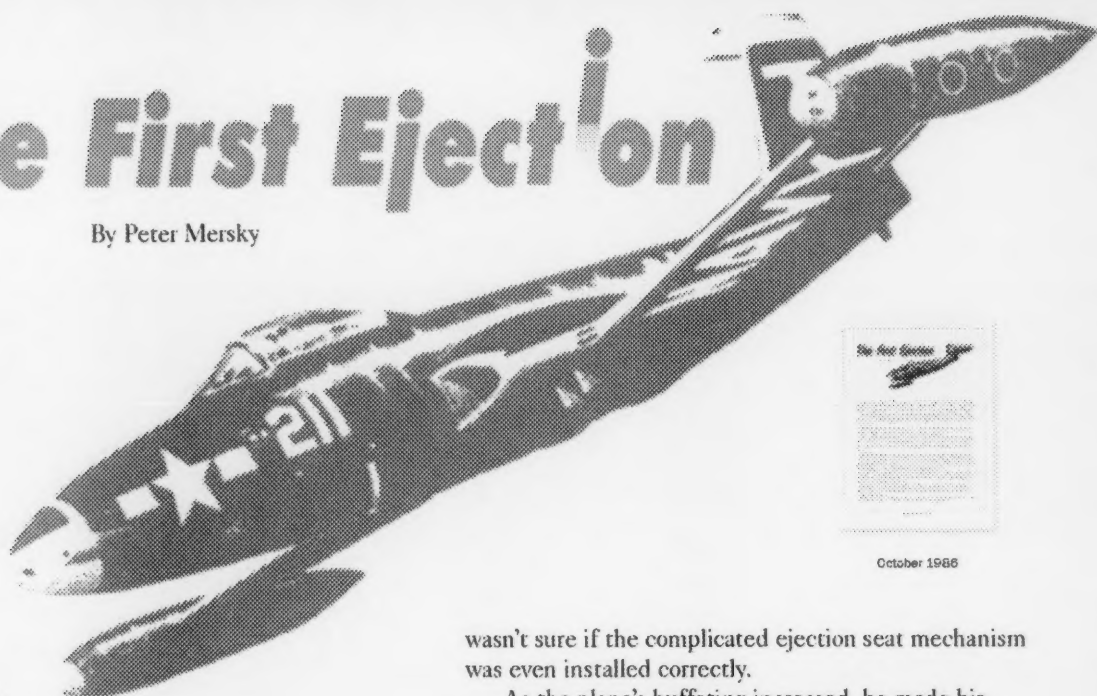
"You should have told Coonts about your dive bomb adventure. Maybe he'd have put it in that book about us."

Sammy levered himself out of his chair and headed for the door. "Yeah, like that little scene on the beach with you and Callie. I wonder who told him about that." He chuckled and darted through the door as Jake groped for a flight boot to throw.

*Mr. Coonts served as an A-6A pilot in Vietnam in 1971-3, flying from the USS Enterprise (CVN-65). He is the author of the best-selling novel *Flight of the Intruder* (U.S. Naval Institute, 1986), which deals with an A-6 pilot in Vietnam.* ◀

The First Ejection

By Peter Mersky



October 1986

It happened on August 9, 1949. Lt. Jack L. Fruin of VF 171 was on a routine training flight after picking up a new F2H Banshee at Cherry Point. Flying at 38,000 feet, Lt. Fruin, "Pappy" to his squadron mates, noticed a spot of frost forming inside his canopy. Soon, the entire inside of the canopy was covered with ice, some of it nearly an inch thick. The cockpit was nearly pitch black.

Pappy brought the Banshee down, thinking the warmer air would defrost the canopy, but suddenly, the rate-of-climb indicator began oscillating and quickly stopped altogether. Then, the whole instrument panel went crazy. Pappy guessed that ice had clogged the outside ports for the pitot-static instruments.

He knew he could keep his wings level, but he couldn't tell whether he was in a dive or climb. The Banshee began buffeting wildly, slamming him around the cockpit. The aircraft was approaching supersonic speed, outside the design limits for the straight-winged F2H.

The young pilot knew he was facing a critical decision: stay with the plane or use the new-fangled ejection seat. Many of the first-generation jet aviators were reluctant to use the seat. The idea of being shot out of their warm comfortable cockpit was not appealing. In addition, Fruin's plane was fresh from the factory. He

wasn't sure if the complicated ejection seat mechanism was even installed correctly.

As the plane's buffeting increased, he made his decision. He put his legs in the stirrups and pulled up the pre-ejection leg braces. Then he reached for the face curtain and pulled, triggering the catapult.

The next thing he knew he was hurtling out of the plane at nearly 600 mph. He knew he had to free-fall for quite a distance to get out of the rarified atmosphere before freezing to death or dying from lack of oxygen. The rip cord was next on his mind, but he couldn't find it. At 15,000 feet, with the ground rushing up at him, he finally found the cord dangling over his side.

With great effort, he yanked the cord with all his might, as the chute opened, jerking him back a few feet. Lt. Fruin floated into a swampy inlet, a few miles from the ocean. He inflated the life raft attached to the chute and climbed in. He then used his hands to paddle to within 100 feet of the marshy ground and began calling for help.

Fortunately, his weak cries were heard by three boys in a rowboat who came to his rescue. They pulled the aviator into their boat and brought him to shore where they had their horses tied. While two rode for help, the third remained with Fruin. A cattle rancher came to his aid and drove him to a hospital 22 miles away.

Besides making the first operational use of an ejection seat in the United States, Lt. Fruin — who later retired as a captain — may also hold the record for the longest free-fall.

80 Years of Fatal Fun...

By Derek Nelson

Fill in the date:

Choices are: 1912, 1929, 1943, 1951, 1952, 1966, 1970, 1980, 1985, 1992.

July-August 1995

A NavCad died in a crash after making several low passes over a beach in an F9F-5. His "own automobile, parked 75 feet to the right of the wreckage path and 716 feet from the point of impact, was severely damaged when struck by the aircraft's tailpipe and tailpipe shroud."

"Hedge-hopping will not be tolerated... No spins on back or tail slides will be indulged in as they unnecessarily strain the machines." [Regulations for Operation of Aircraft]

A P-3 overseas served as platform for skydivers during a holiday celebration in April; the pilot then took the aircraft on a "low-altitude island tour," descended to 300 feet without clearance, hit a cableway wire and crashed, killing all six crewmembers and two civilians on the ground.

This year, flat-hatting caused three fatal accidents. In each one, the pilot was trying to attract the attention of friends or relatives on the ground. One occurred with a stone's throw of the pilot's house.

Frank McClean flew his biplane through the Tower Bridge over the Thames River in London. He soon crashed into the river, but survived.

Before taking off on a cross-country, an OV-10A pilot told his wife he was going to fly over his uncle's farm. He circled the farm, did aileron rolls, hit some 50-foot trees and crashed, destroying the aircraft and killing himself.

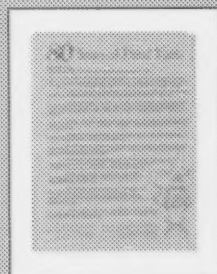
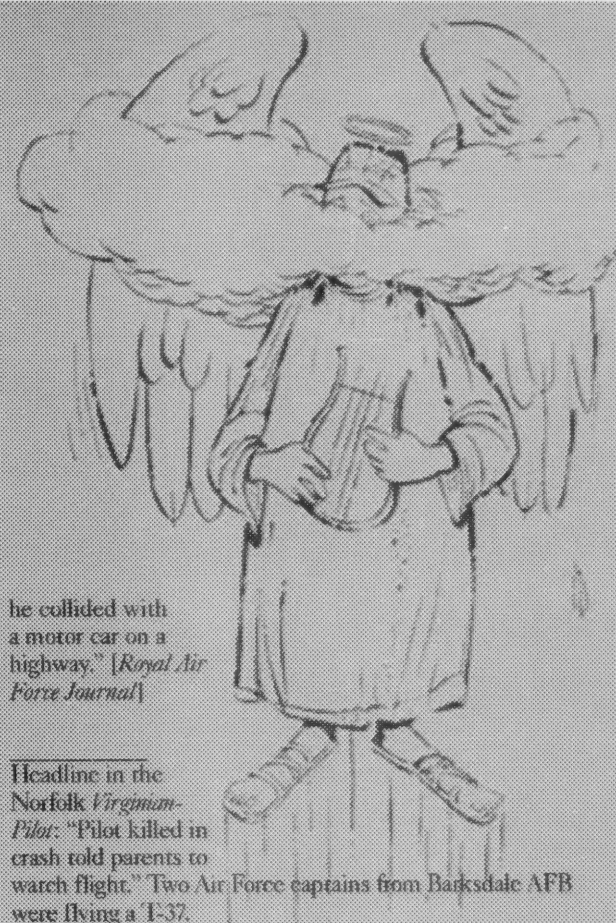
"Four British officers and airmen were court-martialed for flying their planes unnecessarily low over the countryside...one officer flew so low that

he collided with a motor car on a highway." [Royal Air Force Journal]

Headline in the Norfolk Virginian-Pilot: "Pilot killed in crash told parents to watch flight." Two Air Force captains from Barksdale AFB were flying a T-37.

Both members of an A-6 aircrew were killed when they demonstrated a low-altitude roll over a farm in South Dakota belonging to the pilot's family who were watching the airshow. Neither aviator tried to eject; one man's body was cut in half and was found by his uncle.

On a day cross-country, an A-1 pilot flew over his parents home to drop a message. He made two tries, then hit some trees, lost control of the aircraft and crashed into the ground.



5001, 5002, 5003

A-1 pilot flew over his parents home [1966]
OV-10A pilot told his wife [1970]
A-6 aircrew in South Dakota [1985]
Headline in the Norfolk Virginian-Pilot [1992]

Frank McClean flew his biplane through the Tower Bridge [1912]
"Hedge-hopping will not be tolerated" [1929]
"Four British officers and airmen were court-martialed" [1943]
One occurred within a stone's throw of the pilot's home [1951]
A NavCad died in a crash [1952]

What's the Origin of "Bravo Zulu"?

For years, *Approach* has run a column called "Bravo Zulu," a collection of short narratives telling about times when aviators did something right. This feature, we feel, balances the rest of the magazine, which consists of just the opposite: aviators talking about errors, miscues, screw-ups and near-disasters. Every once in a while, someone asks about the origin of the term.

It originated as a naval signal, conveyed by flag hoist or voice radio, meaning "well done." It eventually passed into the spoken and written vocabulary, attracting some myths and legends along the way. The one most frequently heard has Admiral Halsey sending it to ships of Task Force 38 during World War II. However, he could not have done this, since the signal did not exist at that time.

"Bravo Zulu" actually comes from the Allied Naval Signal Book (ACP 175 series), an international naval signal code adopted in 1949 after the creation of NATO. Until then, each navy had used its own signal code and operational manuals. World War II experience had shown that it was difficult, or even impossible, for ships of different navies to operate together unless they could readily communicate, and ACP 175 was designed to remedy this.

In the U.S. Navy signal code, used before ACP 175, "well done" was signaled as TVG, or "Tare Victor George" in the U.S. phonetic alphabet of that time. ACP 175 was organized in the general manner of other signal books, that is, starting with 1-flag signals, then 2-flag and so on. The 2-flag signals were organized by general subject, starting with AA, AB, AC, ... AZ, BA, BB, BC, ... BZ, and so on. The B- signals were called "Administrative" signals, and dealt with miscellaneous matters of administration and housekeeping. The last signal on the "Administrative" page was BZ, standing for "well done." At that time BZ was not rendered as "Bravo Zulu," but in each navy's particular phonetic alphabet. In the U.S. Navy, BZ was spoken as "Baker Zebra." Meanwhile, the International Civil Aviation Organization (ICAO) had adopted English as the international air-traffic-control language. They developed a phonetic alphabet for international aviation use, designed to be as "pronounceable" as possible by flyers and traffic controllers speaking many different languages. This was the "Alfa, Bravo, Charlie, Delta..." alphabet used today. The Navy adopted this ICAO alphabet in March 1956. It was then that "Baker Zebra" finally became "Bravo Zulu." — *Courtesy, Naval Historical Center*

Bravo Zulu *December 1991*

VMFA-314

On the first morning of the ground offensive in southern Kuwait, Maj. Knutzen and Capt. Quinlan launched in two F/A-18A Hornets for an air-to-ground mission. En route to the target area, the section received a call from the Direct Air Support Center (DASC) that Mannes were under fire from an Iraqi multiple-rocket launcher.

After contacting the FAC(A) from VMFA(AW)-121, the two Hornet pilots learned that the target area weather was 7,000 overcast, and that there was enemy anti-aircraft fire. Maj. Knutzen took his section under the overcast and found and destroyed the enemy rocket launcher.

The two Marine aircraft still had ordnance remaining and they flew south to a second rocket launcher and destroyed that position. As he came off that target, Capt. Quinlan felt his aircraft shudder as if he had gone through jst wash. As the Hornet rapidly

extinguished the fire, and he jettisoned all external stores.

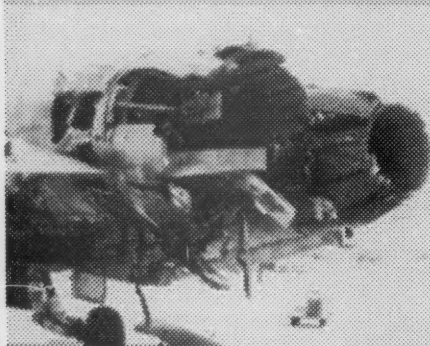
Hearing that his wingman had been hit, Maj. Knutzen came around in a hard right turn to help just as his own aircraft was struck by a SAM. Maj. Knutzen saw flames over his shoulder and heard the engine left caution. He shut down the left engine and put out the fire with the extinguisher.

The two Hornets were still separated as they climbed out over the Gulf. As he continued his climb, Capt. Quinlan inadvertently entered an imbedded thunderstorm, which caused his canopy and wings to ice over. Continuing with NATOPS, he used the aircraft anti-ice system and was able to break into clear air over the Gulf.

Once VFR, Maj. Knutzen and Capt. Quinlan rejoined and flew a VMC single-engine approach to their home field instead of an IMC single-engine emergency approach to the divert field.

The two pilots coordinated with the Navy as they flew more than 200 miles on a single-engine bingo. Both aircraft stayed together until they made their individual approaches.

Capt. Quinlan's aircraft had two FODed engines, damage to the aft fuselage, and damage to the left vertical and horizontal stabilizers. Maj. Knutzen's Hornet had one FODed engine, damage to the aft fuselage, and damage to the left vertical and horizontal stabs. Both aircraft's tail-hook tips were blown off.



Capt. Quinlan's battle-damaged F/A-18



Top to bottom: Capt. S. M. Quinlan, USMC; Maj. R. M. Knutzen, USMC



Approach

1996-2005

New Aircraft:

2001: The first KC-130Js arrive at MCAS Cherry Point and assignment to VMGR-253.

Important Dates:

December 16-19, 1998: Operation Desert Fox includes strikes by *Enterprise* aircraft against Iraqi facilities.

March 24, 1999: Operation Allied Force begins as NATO's aerial campaign against Yugoslavian Serbs. USS *Theodore Roosevelt's* (CVN-71) CVW-8 launches more than 4,200 sorties.

June 25, 1999: The A-4 retires from the training command after 30 years of training naval aviators.

November 1999: The MV-22 Osprey begins operational evaluation as does the FA-18E/F Super Hornet with newly established VFA-122.

January 19, 2000: The Navy decides to restore relations with the Tailhook Association, which were suspended after the 1991 scandal.

April 1, 2001: A Chinese J-8 fighter collides with an EP-3E over international waters. The U.S. crew lands their damaged aircraft on Hainan Island, where they are interned for two weeks.

September 11, 2001: Terrorists hijack four airliners and fly three of them into the World Trade Center towers in New York City and the Pentagon. The fourth aircraft goes down in Pennsylvania. In response to the 9/11 attacks, American forces strike Afghanistan to begin Operation Enduring Freedom.

March 2002: The first fleet FA-18E Super Hornet squadron takes its aircraft into combat for the first time over Iraq.

February 2003: The space shuttle *Columbia* disintegrates during its return descent, killing the crew, including three Navy

members. Operation Iraqi Freedom begins with eventually five carrier battle groups involved. The Marines used "Harrier carriers," amphibious assault ships (LHDs), which replaced all their helicopters with AV-8Bs.

This period saw some of the most intense combat operations involving naval aviation since Vietnam, against unexpected enemies in Yugoslavia and the Balkans.

The Navy and Marine Corps brought in new aircraft, decommissioned squadrons and established new ones, and considered various programs to make the community safer amidst all the real-world operations. It was not an easy task. One program, Operational Risk Management, considers mission necessity and aircraft and aircrew availability and readiness to perform the mission.

Within a month of September 11, 2001, American forces struck Afghanistan, the heart of the Taliban's seat of power. Naval aviation sent strike groups of FA-18s and F-14s, supported by EA-6Bs, E-2Cs, and shore-based communities, deep into the mountainous strongholds with devastating effect. Two years later, America led the reconstituted alliance of 1991 against Iraq, storming into Baghdad and removing leadership from power.

Carrier strike groups received their share of attention, and it was not unusual for returning aircrews to be interviewed as they left their cockpits, their flight suits sweaty and their hair stuck to their faces from the long missions they just had flown. One has to wonder if the reporters truly understood what the crews had gone through—the training and the concerns for safely flying their mission and trapping back aboard the ship, often at night, or in the shadowy light of dawn.

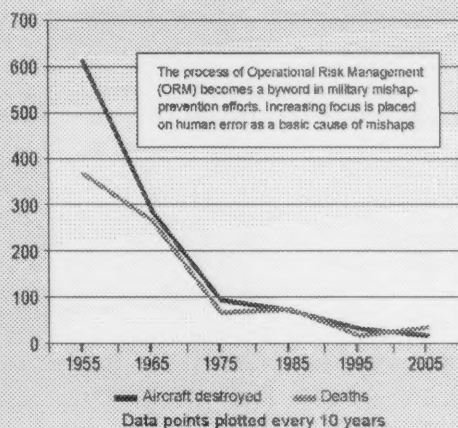
Despite the overwhelming speed and might that echoed the victory of 1991, a bitter insurgency keeps America and the alliance fighting an undeclared war, supported by Navy and Marine aircraft and crews.

One air-wing leader later observed that in the 12 years following Desert Storm, we had availed ourselves of improvements in weapons technology and resulting accuracy and lethality. There had been a corresponding reduction in sortie count as well, because it now took fewer aircraft and crewmen to destroy a target. The culture of safety, he also noted, was enunciated by leaders. People "grow up" watching what their squadron COs and CAG do.

To a degree, the same can be said about what people see in print, especially in such publications as *Approach*, which serves as a showcase or platform for people to share their experiences with others. We can all learn from mistakes, ours and others, or from how someone else handled an emergency we might someday face. In the 50 years that *Approach* has cruised in squadron ready rooms ashore and afloat, it always has been a magazine created and maintained by you in the cockpits past and present. We trust the next 50 years will see that record sustained.

As of September 30, 2005, the 2005 aviation mishap rate was 1.60 per 100,000 flight hours. The mishap-rate reduction challenge continues.

Naval Aviation Mishaps



"We Just Put an Aircraft in the Bay!"

June 1998

By AME1 (AW) David B. Clouser

As I drove to work, I thought about what I had to face for the day. Maybe a 28-day pre-panel-up inspection, maybe a post-panel inspection, or maybe even some ejection-seat inspections or installations, which I always looked forward to.

We had our usual meeting to cover the day's launches, inspections and wrenchwork. Everything seemed fine as I left maintenance control for the QA work center to begin my routine as A-6E full-systems QAR. The squadron was doing field carrier landing practice (FCLP).

A call went out for troubleshooters for the three-plane launch. Since I was the only QAR available, I grabbed my cranial and headed for the flight line. Once there, I did my usual survey: no FOD on the GSE,

everyone suited up, tool pouches FOD-free. The three-plane go left without incident. Smooth as silk.

I walked inside to maintenance to review the aircraft discrepancy books (ADBs). That's where all semblance of a normal day ended. I had gotten through my second ADB when three officers in flight suits looking rather rushed and panicked barged in asking, "What the hell just happened? Did the aircraft call in?"

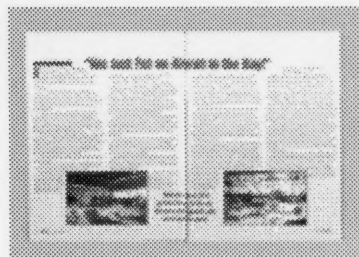
I said, "No everything's fine as far as I know. Why, what's wrong?"

"He went in," the pilot replied. "We just put an aircraft in the bay. Don't touch any more ADBs."

I heard the other aircraft coming back, and I rushed out to the flight line where a crowd was already forming and the gossip beginning. I walked up to the wingman pilot and asked, "Were there any chutes? Did you see them eject?"

He said, "No, I didn't see any seats," as he kept walking past me into the hangar. I couldn't believe this was happening. I had just seen the crew not 10 minutes earlier during the launch. What happened? Had I really checked everything as carefully as I could? Had I missed anything? Things around the hangar were moving fast. I started seeing people I didn't recognize coming into the hangar. There were so many that the guy on duty at the main entrance couldn't keep up.

A chaplain showed up and was randomly checking to see how everyone was feeling. The plane captains were hit the hardest, because I saw the chaplain talking to them the most. None of it seemed real, and I was having difficulty knowing where I needed to be.



June 1998



I soon found out.

A call went out for all members of the reclamation team and shop supervisors to muster on the hangar deck. We were told about the crash. As soon as more information came in, we would hear that, too. We broke ranks, and the gossip continued.

Initial reports were that neither the pilot nor the BN had survived. I hoped that wasn't so. Another call told me to report to maintenance ASAP. "Uh, oh," I thought, "What was that about?"

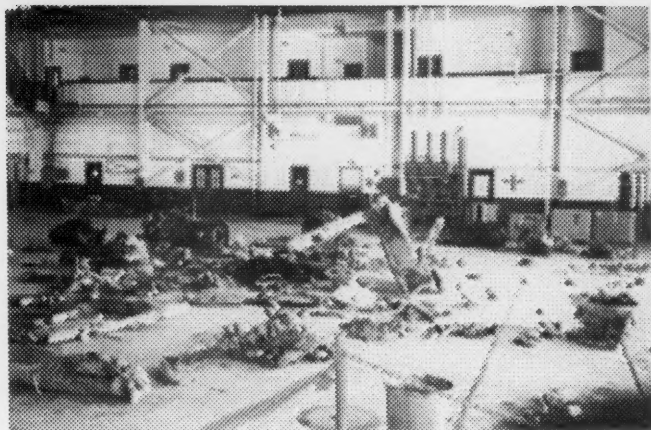
One of the officers was trying to assemble a salvage team. The people hanging around in maintenance didn't look good. Some were visibly upset as they tried to carry on with the task at hand. The officer put me in charge of a team that had to go out in boats and start collecting anything we could find. I was selected because I was familiar with the ordnance in the seats. My heart sank. To know that something had happened was bad enough. Now I had to go pick up the bits and

With the smell of JP-5 jet fuel hanging in the air, the area was peppered with unrecognizable parts.

pieces. I told everyone from the team to report to the duty office with their tool boxes.

Anticipation and fear rose as we boarded the boats to go out to the wreckage in the bay, mostly because none of us knew what we would find. We were silent as we prepared ourselves. We headed out in two boats. I rode with the OinC, and the rest were in a platform boat. The anxiety rose when we saw another boat on its way in, hauling part of a flap and other small parts with them. That crew was from another squadron dispatched from the base to assist.

We pressed on to the area where the wreckage was supposed to be and got down to work. With the smell of JP-5 jet fuel hanging in the air, the area was peppered with unrecognizable parts. I couldn't imagine the force it took to do that to a war machine – not until I gathered up a lox bottle that was normally enclosed in its metal cocoon in the tail of the aircraft. We collected



parts of a fuel bag, honeycomb wing parts galore, a helmet, kneecord maps and the like. Once we had gotten what appeared to be everything, we headed back to the staging area in the hangar. I still wondered about the crew.

Once I got back, I learned that a fisherman had found the crew immediately after the crash. The pilot had died during efforts to revive him, and the BN had been killed instantly. My question about the seats was answered by one of the investigating officers who reassured me that the seats did work, but the crew had been out of the envelope. None of the seats was recovered.

As the next 30 days of salvage by the divers passed and the wreckage stored in a hangar next door piled up, I was startled by the amount of unrecognizable debris. It took three or four tri-wall boxes to hold all of it, and the hangar deck was still completely covered with parts of an imaginary puzzle that couldn't be assembled.

When I got home that afternoon, my wife had been watching the news. I was shocked at how much attention the mishap got. Images flashed across the screen of us collecting debris, the pilot getting CPR from Coast Guard personnel on shore. My father called to ask what happened. My wife and her friend watched the whole thing like a TV show, and even she couldn't believe what she was seeing.

Time has not diminished the impact of what happened that day, and the memory makes me more careful. Nearly every job I take on at work is a subtle reminder of that day, and I find myself being much more meticulous, mainly because I don't want to revisit that day. ◀

AME1(AW) Clouser was with VA-304 at the time of this mishap. He is now with VR-46.

Welcome to Naval Aviation!

by Ltjg. Brandon Scott

I'd always heard the fleet stories from salty training-command instructors about how bad it can get flying around the ship, but I never believed it was much different from flying around the field. I always thought they were embellishing the stories to get us students to take training seriously. I can't tell you how many times during those instrument simulators that I heard the phrase, "Someday you are going to be behind the ship, at night, in a terrible storm, and will have to fly the best approach of your life to get aboard. There isn't going to be anyone with you to pump you to do this or that."

I always thought, "Yeah, yeah, yeah. I've flown in bad weather before; how much different can it be?"

So, there I was, a nugget in a Hornet squadron on my first at-sea period. It was the second week of COMPTUEX, and I still was getting familiar with flying around the ship. My flight that day was an ADEX (air-defense exercise) mission with the skipper. We still were in the presence phase of the exercise, and our mission was to intercept and to escort the bad guys. Before starting the mission, we were scheduled to receive gas from a KC-135 overhead the ship. Getting gas from a

KC-135 is never much fun, and the skipper suggested I put my

drop tanks in stop transfer before takeoff. Hornet drop tanks can take longer to fill than internal tanks. With the drop tanks in stop transfer, all the fuel would be sent to the internal tanks, meaning less time behind the tanker.

My takeoff was delayed for minor problems, and the skipper launched first. After launch, the skipper called me on our aux frequency to say the tanker wasn't on station. That was a big relief. I reached down and flipped the tank-transfer switch to normal transfer, as I headed to our cap station.

Just as I flipped the switch, all my displays blinked, and cautions started popping up. I had problems with fuel pressure and invalid fuel-tank quantities. These problems got my attention because we now were on an hour-and-a-half cycle with no tanker gas. Around the ship, as I was learning, you always are concerned about fuel, even in a double-bubble Hornet.

As I headed toward my cap station to join the skip-



April 1992

per. I saw my fuel indicators were frozen. "Not too big a deal," I told myself. "I'll just tell the skipper what I have once we join. After all, we just launched, and I have plenty of gas." I checked my bit page and saw the cause of the problems was a signal-data-computer (SDC) failure.

I was 15 miles away from joining when the skipper committed on the first bogey group. Well, the middle of an intercept is no time to talk on aux frequency, and I didn't feel the fuel cautions were a pressing issue, so I decided to keep quiet until the intercept was over. I finally joined on the skipper after chasing him through a few broken cloud layers, and we rendezvoused on the bogeys. We were hanging out behind the bogeys waiting for instructions, so I told the skipper what I had. Our controller told us to break off the escort, and he vectored us to get gas from an S-3. While fueling from the Viking, I mentioned to the skipper that I couldn't tell how much gas was received. He decided we should knock it off and head to the ship. The problem was my drop tanks still indicated full, and I had no way to know if they were transferring. The ship controller considered this info and decided it would be best to have me divert to Roosevelt Roads, Puerto Rico.

"Divert? Don't they know I'm a nugget? Oh well, so much for an easy flight," I thought. I dug the approach plates out of my nav bag. I eventually landed safely and wondered when I should go back to the ship.

After calling the ready room, I found out the squadron had sent another jet with a spare SDC. The plan was to replace the bad one and return to the ship that night. Upon arriving at Roosevelt Roads, the pilot who had flown in said the weather near the ship was getting bad, and flight operations were cancelled for the night. If we didn't get back soon, we would be spending the night on land.

The idea of spending the night in Puerto Rico didn't sound too bad to me, when compared to flying back to the ship at night in a thunderstorm, but the decision wasn't up to me. It didn't take long to change the SDC, and we were on our way.

We launched as singles, so we wouldn't have to fly in bad weather as a flight. As I flew off into the pitch-black night and got tossed around by some turbulence, I started to remember those stories from my training-command instructors.

Eventually, we contacted the ship, and they gave us a descent to 1,200 feet. That sounded great to me. We'd be on deck in a few minutes. When I was 30 miles away, I decided to dump down to max-trap fuel weight.

I just had reached for the switch when I heard, "Ninety-nine, all aircraft max conserve. Hold overhead mother, max conserve!"

I thought, "What? I just came down out of that stuff, and I certainly don't want to go back into it and hold!" As we climbed back into the storm, we had moderate-to-severe turbulence with driving rain. Although both aircraft tried, it became apparent there wasn't a good place to hold around the ship. The rain was so loud I hardly could hear the radios and we saw lightning every few seconds.


After what seemed like an eternity, the ship finally cleared us for our approach. The other aircraft went first and was not able to call the ball until one-half mile. That didn't sound good, so I thought about flying "the best approach of my life."

When it came my turn, I chased line-up all the way, and I broke out well right. When I went low on

The rain was so loud I hardly could hear the radios and we saw lightning every few seconds.

the correction to centerline, the LSOs had enough, and I got the "Eat at Joe's" waveoff lights. "So much for the best approach of my life," I thought. My second approach was much better and I got aboard safely. I just was glad to be on deck and proudly walked across the flight deck in the pouring rain. When I got to the ready room, the skipper was standing there with his hand out. As I shook his hand, he said, "Welcome to naval aviation!"

As for lessons learned, I finally appreciated all those boring instrument simulators, which I dreaded so much in the training command. I also was glad I had looked over the divers before needing them. A few days later, a door-3 fastener came loose and shot down my right intake, FODding the engine. I had to bring the jet back aboard single engine.

In one week, during my first at-sea period, I had diverted to an unfamiliar airfield, made a single-engine landing at the ship, and had flown back aboard at night in one of those notorious thunderstorms you hear about in the training command. One piece of advice for those about to become nuggets: Don't relax because you finally made it to the fleet; the real test is about to begin! 

Ltjg Scott flies with VFA-86.

AIRSHOW ATTACK

by LtCol. Peyton DeHart, USMCR

August 2001

August 2001

Airshow season is our chance to show the American public the great machines they have bought for us. It is an even better opportunity to show them what great people we, who fly those machines, are. Though the Cobra usually doesn't perform flying demonstrations, I remember one particular airshow when the reins had been loosened, allowing a simulated assault to take place.

Imagine my giddy response when it became known there would be pyrotechnics on the ground to simulate the awesome destruction the Snake can inflict! A hundred yards of blasting caps, strung together with det cord, approximating the cyclic rate of fire of the 20mm gun mounted on our nose. Oh joy! Oh noise!

The Cobra chosen to fly to the show was pristine, with a new paint job and a recently changed engine. Since rework, it had flown only a test hop and the hour-long ferry flight to the show.

It was a balmy Spring day. Nice older ladies working the concession stands wore T-shirts that read "GRITS" on the front (the explanation "Girls Raised In The South" was printed on the back). I was sure they would be impressed by my performance.

Flight brief, pyro brief, safety brief, wing walkers, biplane acts... we endured all sorts of waiting until the appointed hour when we could spin up and rule the skies in front of the awestruck crowd. At last, it was show time. A Huey carrying troops cranked and launched, we cranked and launched. They flew to their holding spot, we flew to ours. The narrator explained the scenario to the crowd before getting on the radio to say, "You're on!"

Our script had the Cobra lead the way by swooping from a lofty perch, in a high-angle dive, down to

a spot off to the side of the demolition pit. When the helo roared past, the det cord would light off the string of explosions. It was the only pyro at the show, and I would get it all! I rolled the Cobra on its side and then let the nose fall through the horizon until we were diving at 30 degrees nose down. The Cobra built up speed and started to rattle and shake. More speed, the ground rushing upwards, tracking, tracking...

You remember we had a new engine? Halfway down the chute, mere seconds before blasting the target to smithereens, the engine chip light lit up. Son of a... well, getting a chip light was not altogether unexpected. We all know that chip lights are common to new engines, just the bearings wearing in. It would just be some fuzz on the chip detector that could be wiped off. Glory or chip detector? Glory or chip detector?

They always say, "The show must go on!"

Wait... *air show*. This wasn't real. I raised the nose slightly to break the rate of descent and turned away from the crowd, flaring to land on a taxiway outside of eyesight and earshot. The swift-thinking narrator ad libbed that "stiff resistance on the ground" had shot down the Cobra, and the Huey was inbound to save the day. The Huey dove into view and flared to land in order to disgorge the ground guys. The door gunner "fired" his M-60, and the string of blasting caps erupted in front of the gasping crowd. Much applause, much adulation. Oh, the shame, the inhumanity!

After shutdown, the chip detector was pulled, cleaned (it had some metal fuzz from new bearings getting worn in), and reinstalled. The engine was good to go and has run fine since then.

Hey, it was only a show.

LtCol. DeHart is with the 4th Marine Aircraft Wing, FMF.

I Want to Be a Navy Pilot

By a fifth grader

I want to be a Navy pilot when I grow up because it's fun and easy to do.

Pilots don't need much school, they just have to learn numbers so they can read instruments.

I guess they should be able to read maps so they can find their way if they are lost.

Pilots should be brave so they won't be scared if it's foggy and they can't see. If a wing or a motor falls off, they should stay calm so they'll know what to do.

Pilots need to have good eyes so they can see through clouds and they can't be afraid of lightning or thunder because they are closer to them than we are.

The salary pilots make is another thing I like; they make more money than they can spend. This is because most people think airplane flying is dangerous, except pilots don't, because they know how easy it is.

BROWNSHOES

IN

ACTION COMIX

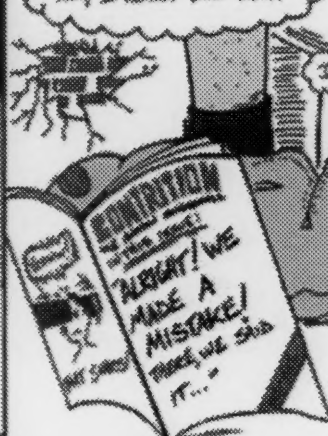
"The kind real aviators like"
by LCdr. Ward Carroll, VF-102

50 years ago...



a magazine is born.

HEY, I ALMOST DID THAT.

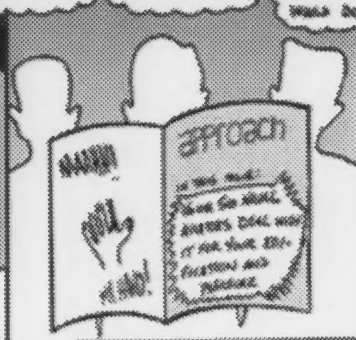


And 50 years later, the format has changed slightly, but the idea remains the same:

I ALMOST DID THAT!

I ALMOST DID THAT!

WHAT KIND OF A DICK WOULD DO THAT?



and the mission continues...



Anymouse:

The willingness of naval aviators to share their experience and stories in *Approach*, whether good or bad, created a safety culture unique throughout aviation.

